HYDRO GEO CHEM, INC.
Environmental Science & Technology

February 12, 2010

David Frydenlund, Esq.
Denison Mines (USA) Corporation
1050 17th Street, Suite 950
Denver, Colorado 80265

Dear Mr. Frydenlund,

Included with this letter are the interpretive geologic cross-sections and the additional supporting data requested in the URS Round 2 Interrogatory Statement regarding the Groundwater Discharge Permit for proposed tailings Cell 4B (Figure 1) at the White Mesa Uranium Mill site (the site). Geologic cross-sections consist of 1) a generally east-west cross section (A-A') through perched monitoring wells MW-17, former well MW-16, and MW-23, and 2) a generally north-south cross section (B-B') through perched monitoring wells MW-28, MW-29, MW-23, former well MW-16, and MW-3A. These cross-sections are provided in Appendix A and their locations are depicted on Figure 2.

Data supporting the cross sections are provided in Appendix B. These cross-sections and supporting data constitute the information to be provided under separate cover as discussed in Hydro Geo Chem (HGC), 2010[1]. Appendix B also provides available lithologic data from angle borings to support discussions in HGC, 2010 and a log for Boring #19 (Dames and Moore, 1978[2]) which is discussed below.

Because detailed lithologic data other than the elevation of the contact between the Burro Canyon Formation and underlying Brushy Basin were not available for wells MW-5, MW-12, MW-14, and MW-15 (Figure 2), these wells are not shown on the cross-sections. Although a detailed log for Boring #19 is available, and this boring is reported to be located near proposed Cell 4B, its precise location is unknown and it is not shown on the cross sections. Data from the angle borings are also not included in cross-sections because the locations of the borings are not precisely known nor are the true depths of the lithologic features described in the angle borings.

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[1] HGC, 2010. Letter to David Frydenlund, Esq, Denison Mines. February 10, 2010.

[2] Dames and Moore. 1978. Environmental Report. White Mesa Uranium Project, San Juan County, Utah. Submitted to Energy Fuels Nuclear, Inc.

Requested Information Provided with this Letter

The Round 2 Interrogatory requests the development of geologic cross-sections "*depicting the three-dimensional configuration of the contact between the Brushy Basin and the Burro Canyon formations representing the area beneath and downgradient of the Cell 4B footprint.*" These cross-sections are to *" include information on the locations and distribution of any conglomerate zones and/or lenses that may exist beneath the Cell 4B area that might influence groundwater flow paths beneath Cell 4B."* The Interrogatory also requests lithologic data supporting these cross-sections and data regarding vadose zone and saturated zone permeability testing in the vicinity of proposed Cell 4B. As discussed above, cross-sections are provided in Appendix A and supporting data are provided in Appendix B.

Description of Cross-Sections

The cross-sections provide an interpretation of lithologic conditions beneath proposed Cell 4B between the land surface and the Brushy Basin contact with the overlying Burro Canyon Formation. In particular, they provide an interpretation of the locations and extent of materials reported in the lithologic logs as conglomerate, as well as sandstone intervals reported to contain various conglomeratic features. Intervals of shale, sandstone, conglomerate, siltstone, shale with silt, sand, sand with silt, and sandstone with intermittent conglomeratic features are depicted. Contacts between lithologic features are dashed where uncertain. Vertical exaggerations of 5 and 7.5 are used in cross-sections A-A' and B-B', respectively.

A distinction is made between materials depicted as conglomerate in graphic logs of borings and materials depicted as sandstone in graphic logs but described in the sample description sections as sandstones having conglomeratic features. For example, the graphic log of MW-16 (Appendix B) depicts an interval containing conglomerate (and sandstone and siltstone) between depths of approximately 43 and 47 feet (ft). Three other intervals of sandstone described in the sample description section as "*conglomeratic in part*", or containing occasional "*conglomerate stringers*", or having "*conglomeratic pebbles*" that are "*angular lithic fragments*" are depicted on the graphic log as sandstone. The interval described as sandstone having "*conglomeratic pebbles*" that are "*angular lithic fragments*" is arguably not significant enough to be characterized as conglomeratic material. Similarly, the Boring #19 graphic log indicates one interval of conglomerate, approximately 2 ft thick, at a depth of approximately 37 ft. A second deeper interval of sandstone, located between approximately 80 and 85 ft, is ambiguously described as "*moderately well-cemented conglomerate or fractured sandstone*", but is not distinguished on the graphic log.

Intervals depicted on graphic logs as conglomerate are likely more significant lithologically than intervals depicted as sandstone but described in the sample description sections as sandstone having conglomeratic features. The latter are represented on cross-sections as "sandstone with intermittent conglomeratic features". Because intervals of sandstone having conglomeratic features are not depicted on graphic logs of the borings, the precise depth intervals of these lithologies are generally not known, and they are represented as conservatively thick on the cross-sections.

The contact between the Burro Canyon Formation and the overlying Dakota Formation is depicted on the cross-sections only at MW-16 and MW-17. This contact is not reported in logs for other wells used to make the cross sections. In general, these two formations are so similar at the site that they are difficult to distinguish reliably.

Conditions Depicted on the Cross-Sections

In general, lithologies other than "sandstone" (as defined on the cross-sections) are not correlatable between boreholes. Where non-sandstone lithologies are interpreted to be continuous between boreholes they are sub-horizontal. For example, a conglomerate appearing between depths of approximately 70 and 80 ft in both MW-28 and MW-29 (cross section B-B') is interpreted to be continuous between these borings and is relatively flat-lying because it occurs at similar depths. The apparent dips of these features are exaggerated by the vertical exaggeration of the cross-sections. As described above, vertical exaggerations of 5 and 7.5 are used in A-A' and B-B', respectively. Discontinuous features are also depicted as sub-horizontal in the cross-sections because 1) there is no reliable borehole data to indicate otherwise, and 2) sub-horizontal geometry is generally expected in formations of fluvial origin having shallow dips such as the Dakota and Burro Canyon Formations in the vicinity of the site.

Sub-horizontal intervals of conglomerate and sandstone having conglomeratic features are expected to have a minor impact on any seepage that may originate from proposed Cell 4B. As discussed in HGC, 2010, these vadose conglomeratic intervals do not consistently have higher hydraulic conductivities than the surrounding sandstones. Should these intervals have higher conductivities, they would likely spread any seepage laterally so that the seepage would contact a larger area of perched groundwater. This would reduce the possibility that any seepage originating from a localized source area could contact a localized region of perched groundwater and pass undetected between perched monitoring wells. Under these conditions, the impact of conglomeratic intervals on any seepage would likely be beneficial with regard to timely detection of any seepage by perched groundwater monitoring wells.

Brushy Basin/Burro Canyon Contact Geometry near Proposed Cell 4B

The Brushy Basin/Burro Canyon contact depicted in the cross sections is based on the contact elevations reported in the boring logs. The contact geometry is reflective of the surface depicted in Figure 2 which is similarly based on the logs. The dry area beneath MW-16 resulting from the ridge-like feature in the contact is relatively small as discussed in HGC, 2010 (Figure 3), and is expected to have a negligible impact on groundwater monitoring downgradient of proposed Cell 4B.

Conclusions

As discussed in HGC, 2010, available lithologic and hydraulic test data from the immediate vicinity of proposed Cell 4B do not indicate a consistent association between conglomeratic materials and higher permeability in the vadose zone. Hydraulic properties of conglomeratic zones depicted in the cross-sections are likely to be sufficiently similar to surrounding sandstone that they would not significantly impact groundwater movement in the vadose zone. Therefore these zones are not considered to be of concern in the vicinity of proposed Cell 4B.

Should high permeability layers exist within the vadose zone beneath proposed Cell 4B, they would likely be beneficial with regard to timely detection of any seepage that may occur. Interbedded higher permeability layers or lenses are expected to be sub-horizontal and would likely spread any seepage over a wider area. This would reduce the chances that any seepage originating from a highly localized source could pass undetected between perched monitoring wells. Seepage from proposed Cell 4B is highly unlikely, however, considering the leak detection system that will be incorporated into the cell design.

The estimated extent of the dry area beneath proposed Cell 4B (as shown in the cross-sections and Figure 3) is relatively small, representing less than 10 percent of the area of the proposed Cell 4B footprint (HGC, 2010). Water flowing in a generally southwesterly direction beneath the proposed tailings cell is expected to flow around the dry area and then continue in a southwesterly direction. The available data do not suggest that this dry area will have a significant impact on perched water flow beneath proposed Cell 4B. Any seepage that contacted and migrated off the ridge-like feature and encountered perched water would then be expected to migrate with the perched water in a generally southwesterly direction.

Sincerely,

Stewart J. Smith
Associate Hydrogeologist

Attachments: Figures (3)
Appendices (2)

ATTACHMENTS

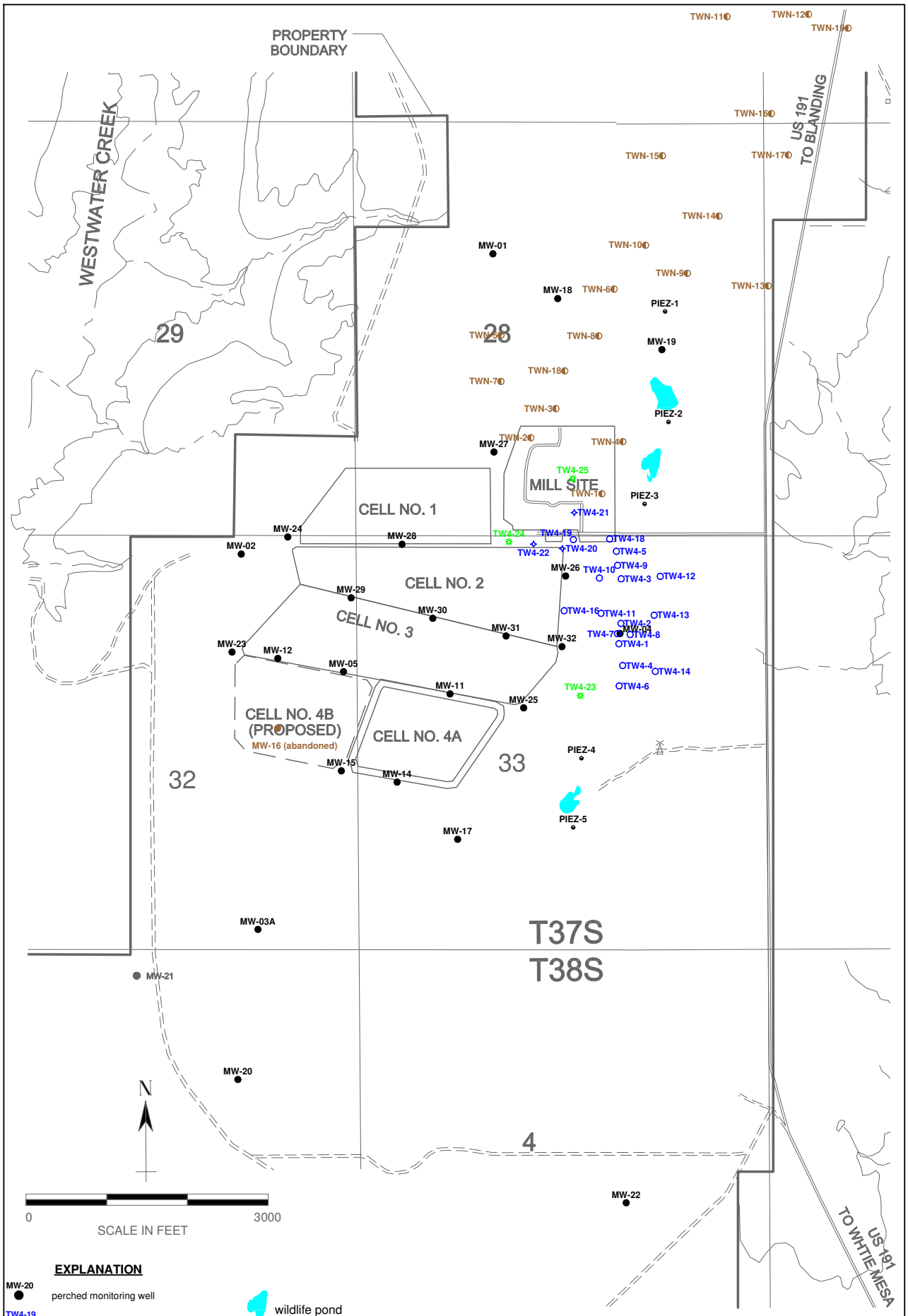
FIGURES

1 Site Plan Showing Perched Well Locations and Proposed Cell 4B, White Mesa Site
2 Approximate Elevation of Top of Brushy Basin Showing Locations of Geologic Cross-Sections A-A' and B-B' (Contours Generated by Kriging)
3 Kriged December 2009 Perched Water Level Map Showing Estimated Dry Area Near MW-16, White Mesa Site

APPENDICES

A Cross Sections
B Detailed Boring Logs and Permeability Data

FIGURES



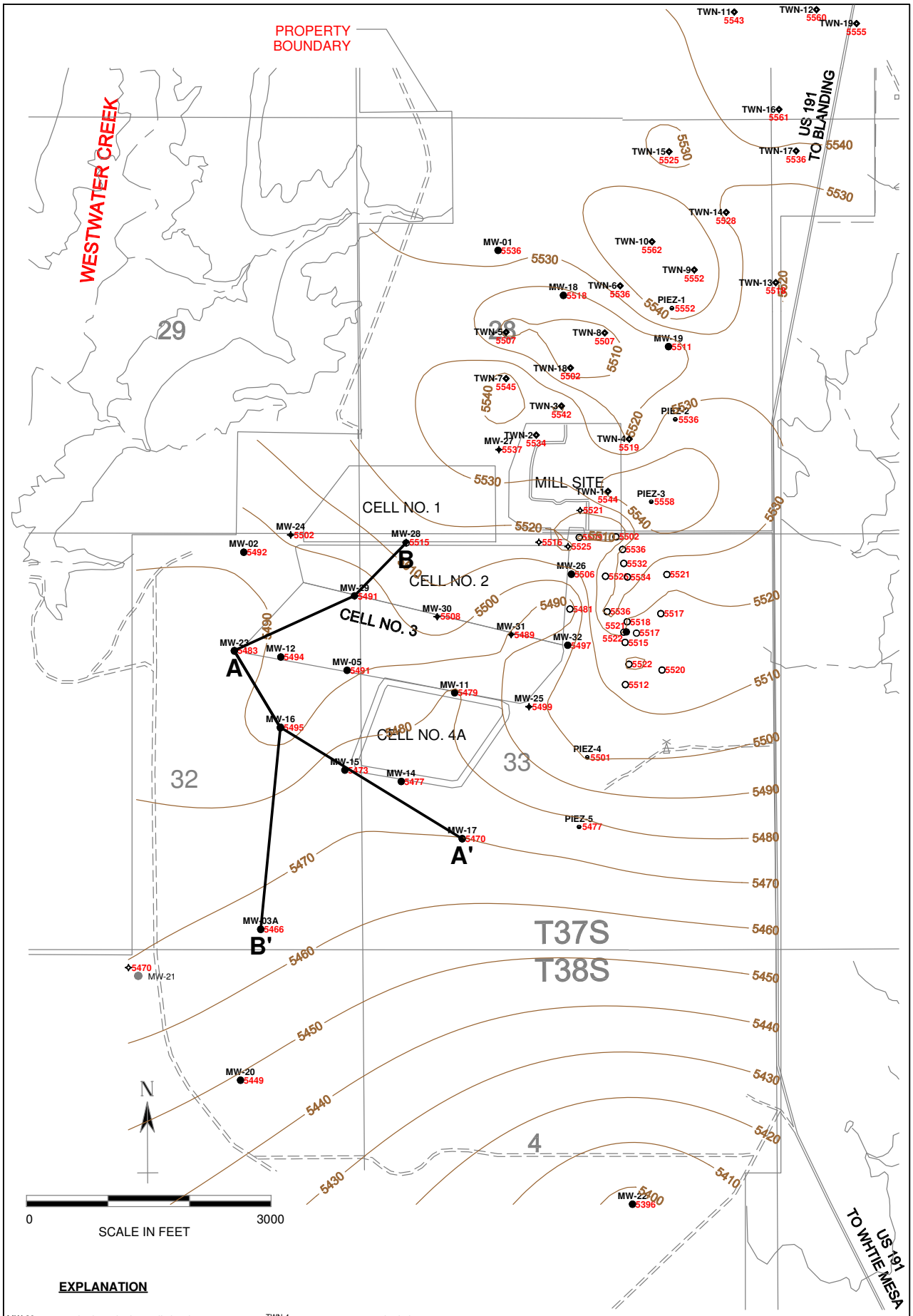
EXPLANATION

- MW-20 — perched monitoring well
- TW4-19 — temporary perched monitoring well
- PIEZ-1 — perched piezometer
- TW4-23 — temporary perched monitoring well installed May,2007
- TWN-1 — temporary nitrate monitoring well installed in 2009
- wildlife pond

HYDRO GEO CHEM, INC.

SITE PLAN SHOWING PERCHED WELL LOCATIONS AND PROPOSED CELL 4B WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/ cell4bfeb2010/crossect/cell4bc2.srf	1



EXPLANATION

MW-20 5449	perched monitoring well showing elevation in feet amsl
5512	temporary perched monitoring well showing elevation in feet amsl
PIEZ-1 5552	perched piezometer showing elevation in feet amsl
MW-31 5489	perched monitoring well installed in 2005 showing elevation in feet amsl
5525	temporary perched monitoring well installed in 2005 showing elevation in feet amsl
TWN-4 5519	temporary perched nitrate monitoring well showing elevation in feet amsl

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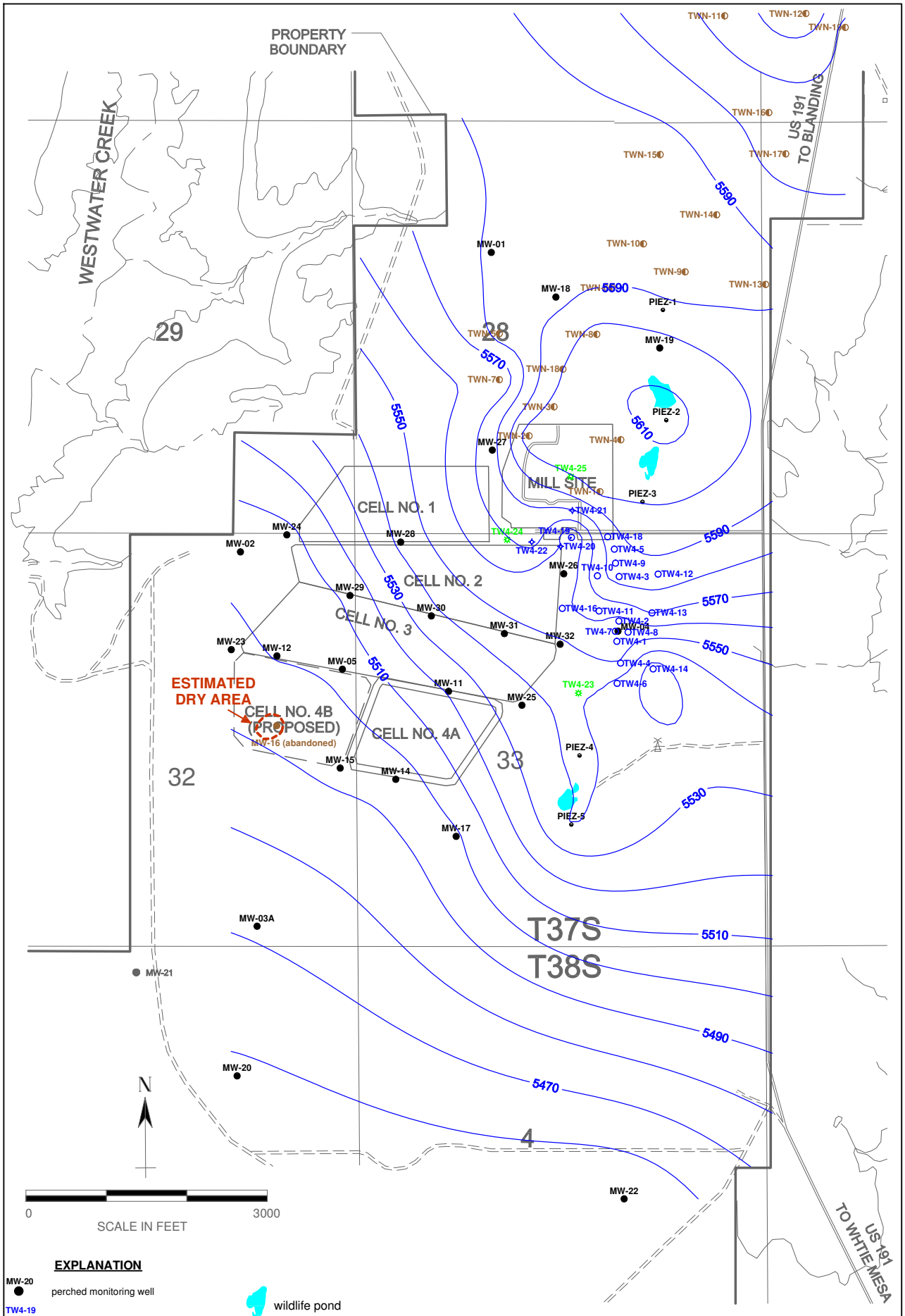
APPROXIMATE ELEVATION OF TOP OF BRUSHY BASIN SHOWING LOCATIONS OF GEOLOGIC CROSS-SECTIONS A - A' AND B - B' (Contours Generated by Kriging)

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/ cell4bfeb2010/crossect/bbel0909xs.srf	2



EXPLANATION

- MW-20 — perched monitoring well
- TW4-19 — temporary perched monitoring well
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- TW4-23 — temporary perched monitoring well installed May,2007
- TWN-1 — temporary nitrate monitoring well installed in 2009
- wildlife pond

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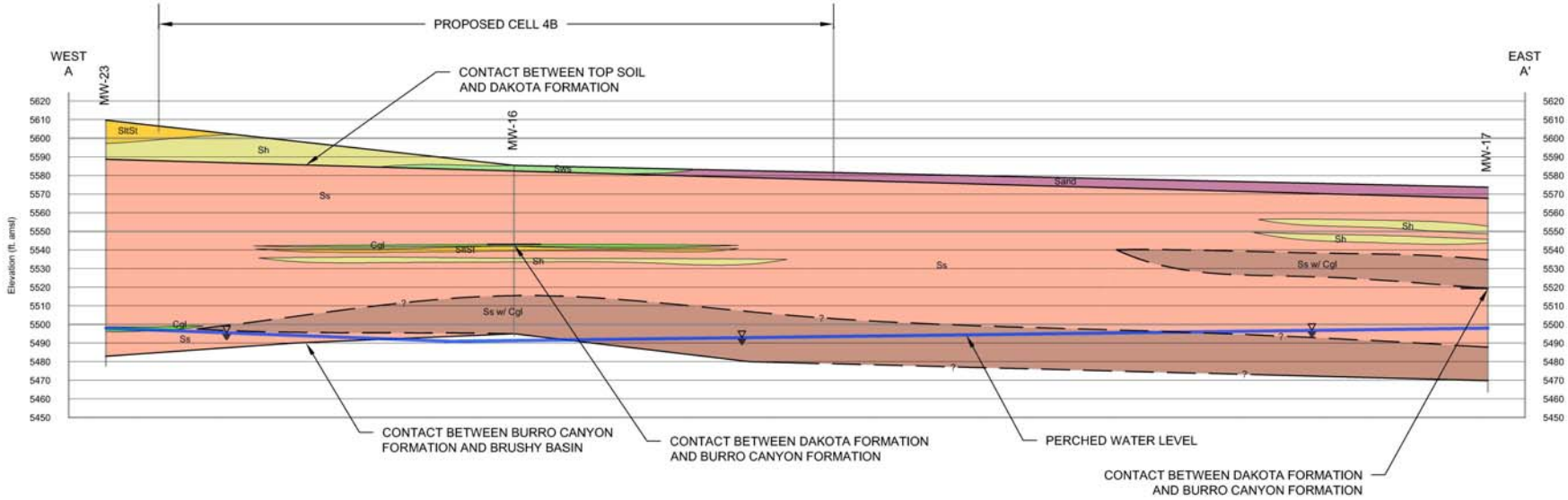
KRIGED DECEMBER 2009 PERCHED WATER LEVEL MAP SHOWING ESTIMATED DRY AREA NEAR MW-16 WHITE MESA SITE

APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/ cell4bfeb2010/crossect/wl12094b.srf	3

APPENDIX A

CROSS SECTIONS



LEGEND

Sh	Shale
Ss	Sandstone
Cgl	Conglomerate
SltSt	Siltstone
Sand	Sand
Sws	Sand w/Silt
Ss w/Cgl	Sandstone w/ Intermittent Conglomeratic Features

Water Table Based on December 2009 Measurements

Vertical Scale: 0 60' 120'

Horizontal Scale: 0 300' 600'

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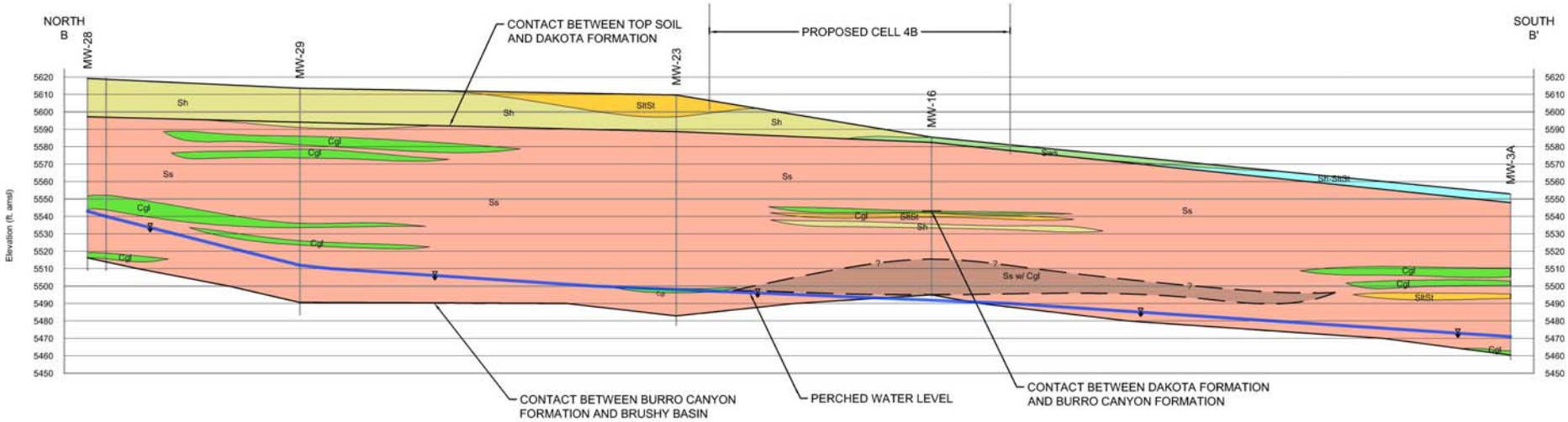
WEST TO EAST TRENDING CROSS-SECTION
THROUGH PROPOSED CELL 4B
WHITE MESA SITE

Approved	Date	Author	Date	File Name	Figure
SJS	02/12/10	AMC	02/12/10	718000109A	A.1



LEGEND

Sh	Shale
Ss	Sandstone
Cgl	Conglomerate
SltSt	Silt Stone
Sh-SltSt	Shale w/Silt
Sws	Sand w/Silt
Ss w/Cgl	Sandstone w/ Intermittent Conglomeratic Features

Water Table Based on December 2009 Measurements

Vertical Scale: 0 60' 120'

Horizontal Scale: 0 450' 900'

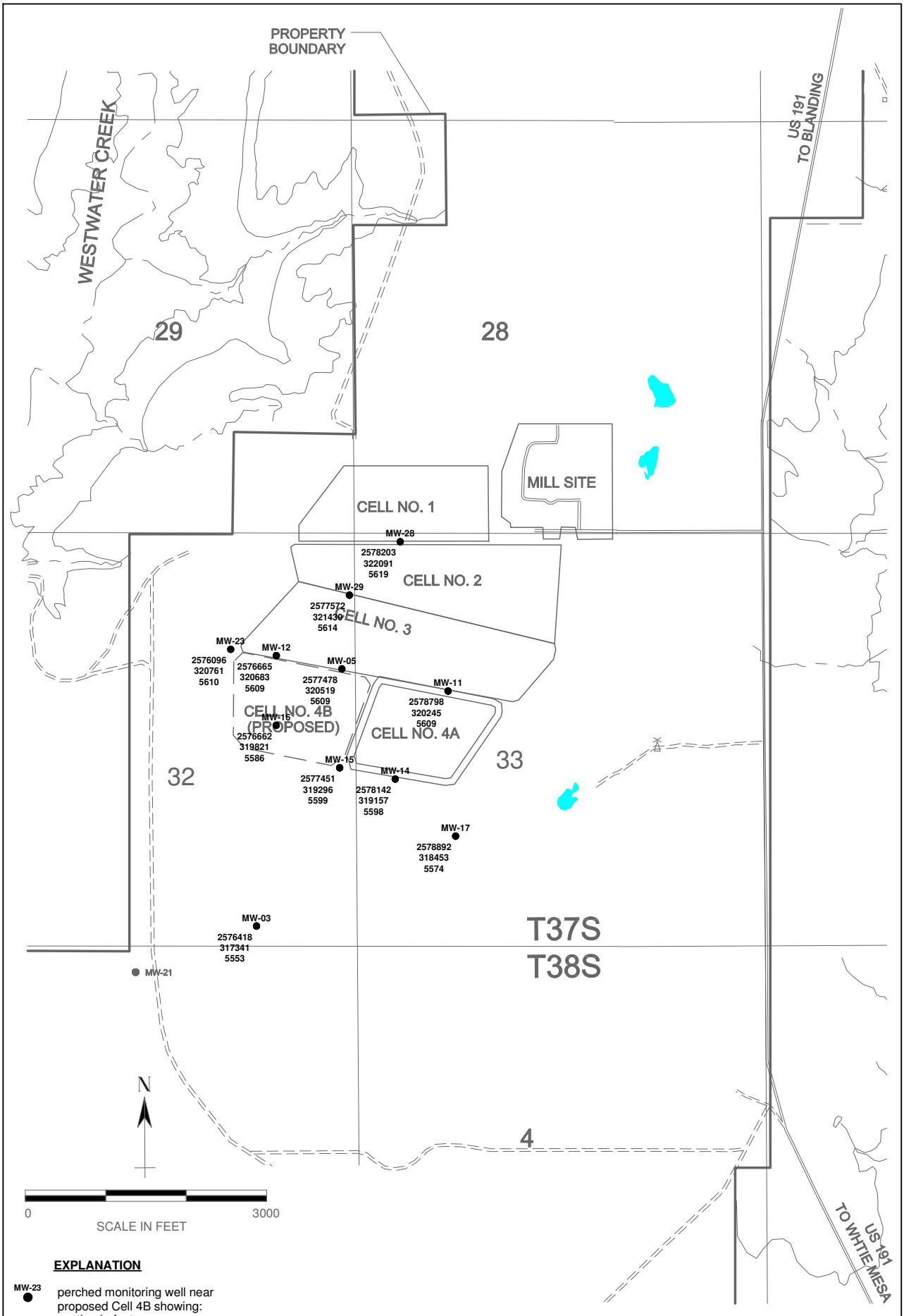
HYDRO GEO CHEM, INC.

NORTH TO SOUTH TRENDING CROSS-SECTION THROUGH PROPOSED CELL 4B WHITE MESA SITE

Approved	Date	Author	Date	File Name	Figure
SJS	02/12/10	AMC	02/12/10	718000108A	A.2

APPENDIX B

DETAILED BORING LOGS AND PERMEABILITY DATA



EXPLANATION

MW-23 ● perched monitoring well near proposed Cell 4B showing:
2576096 easting in feet
320761 northing in feet
5610 surface elevation (feet amsl)

wildlife pond

HYDRO GEO CHEM, INC.

SITE PLAN SHOWING PERCHED WELL LOCATIONS NEAR PROPOSED CELL 4B AND SURVEYED COORDINATES WHITE MESA SITE

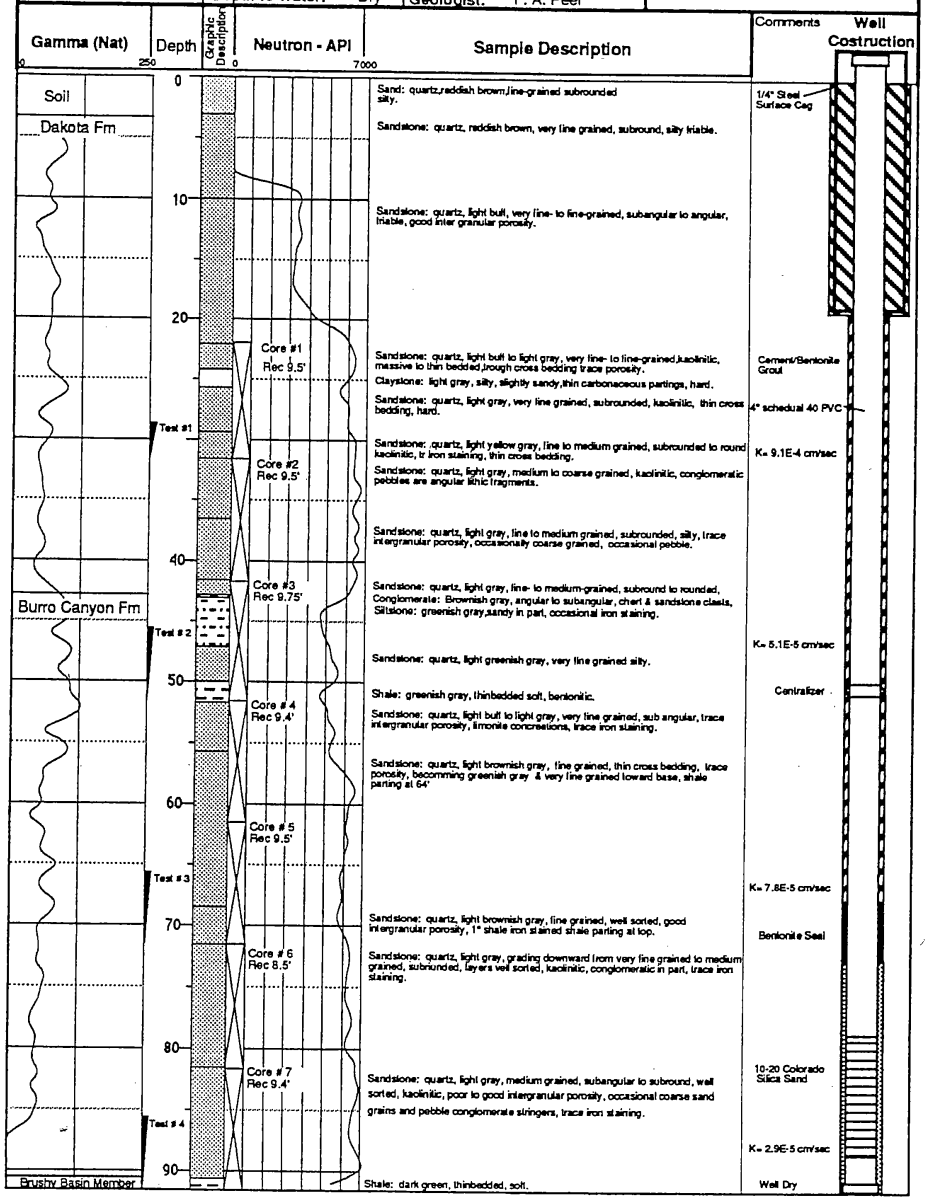
APPROVED	DATE	REFERENCE	FIGURE
SJS		H:/718000/ cell4bfeb2010/crossect/coord4b.srf	

PEEL Environmental Services
Arvada, CO (303)422-5116

Bore Hole No. : WMMW-16

Project: White Mesa | **Surface Elev.** 5587 est | **T. D. =** 91.5 | **UMETCO Minerals Corporation**

Date: 12/07/92 | **Depth to Water:** Dry | **Geologist:** F. A. Peel

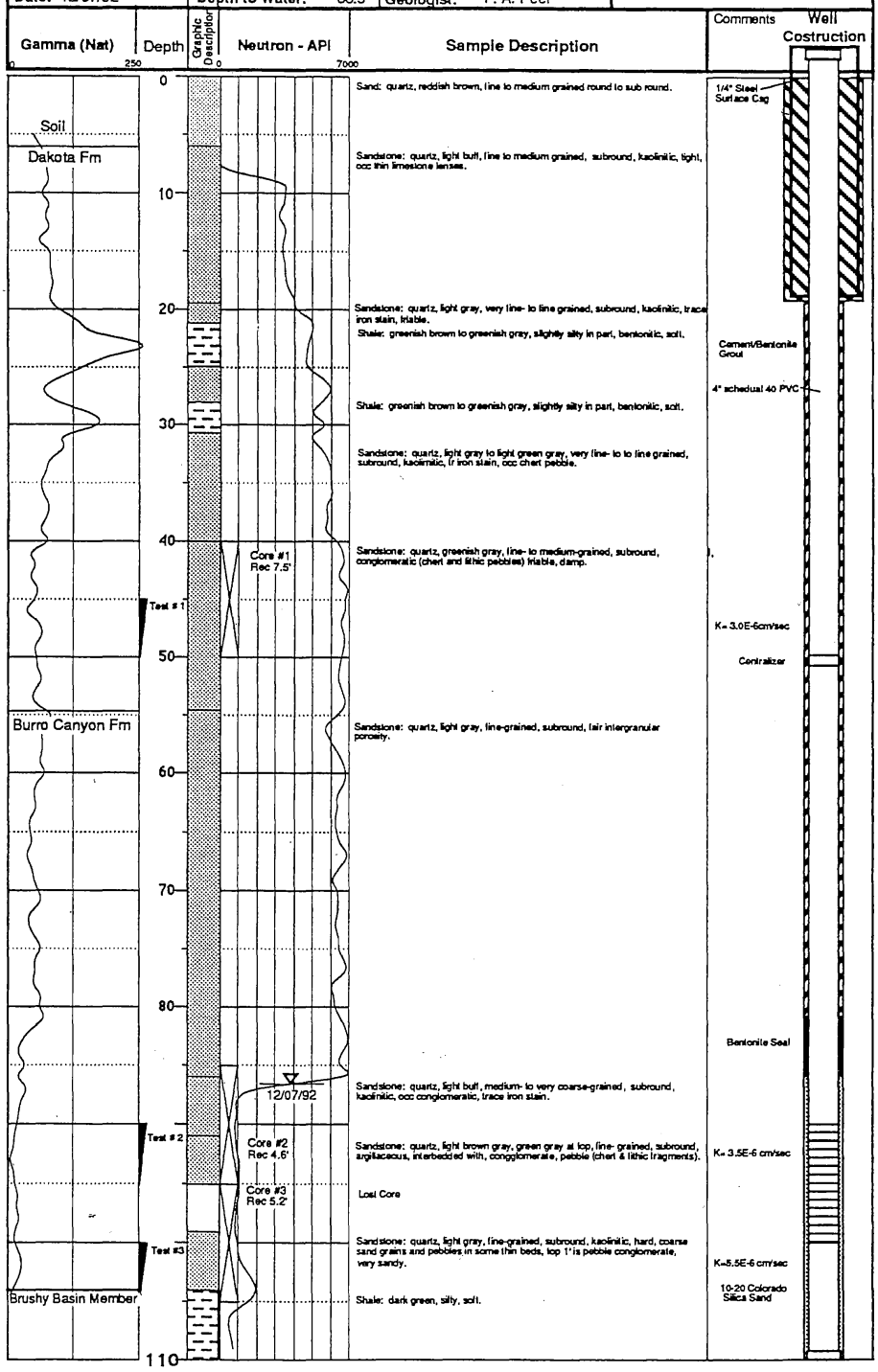


PEEL Environmental Services
Arvada, CO (303)422-5116

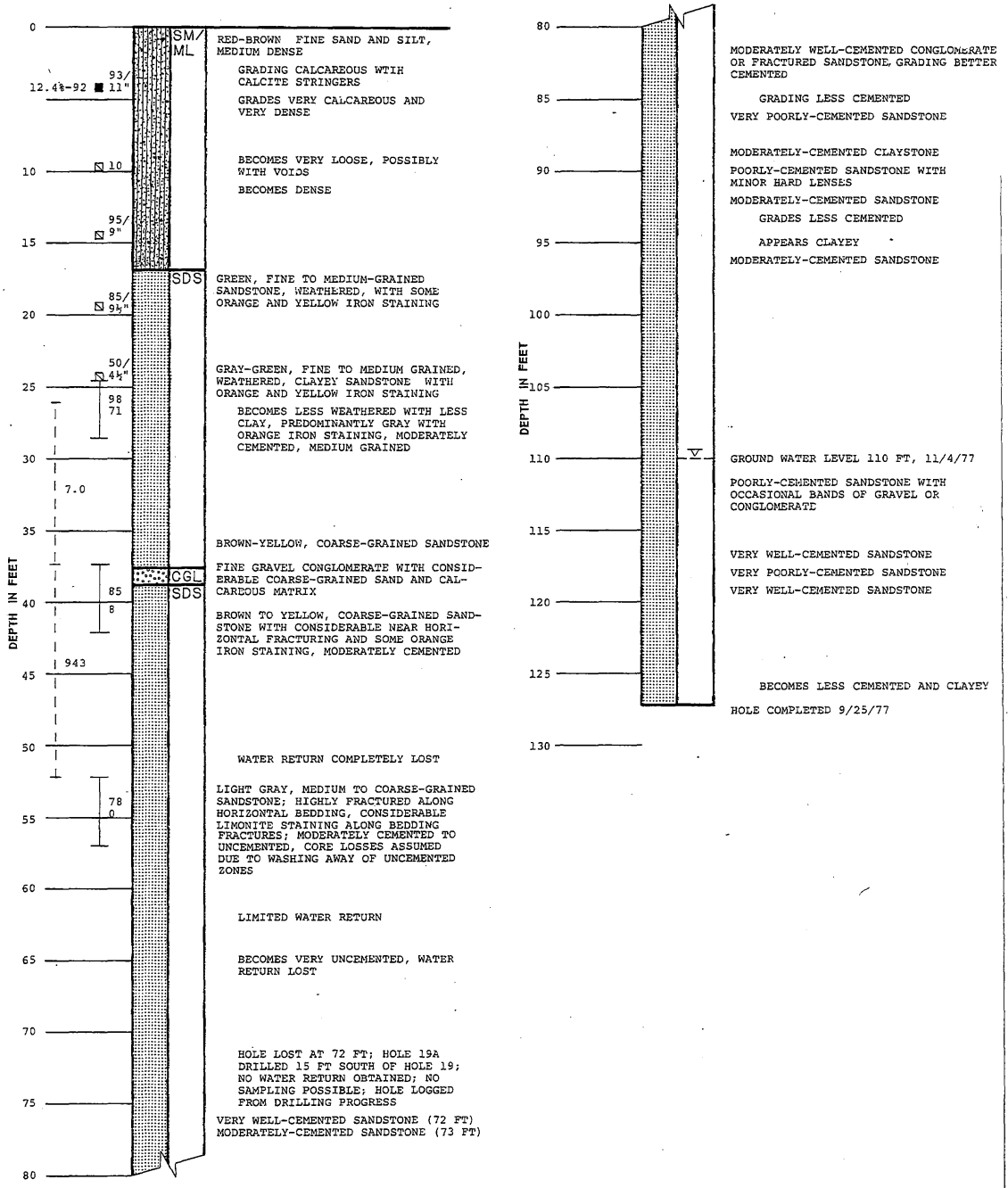
Bore Hole No. : WMMW-17

Project: White Mesa | Surface Elev. 5580 est | T. D. = 110' | UMETCO Minerals Corporation

Date: 12/07/92 | Depth to Water: 86.5' | Geologist: F. A. Peel



BORING NO. 19
EL. 5600.3 FT.



LOG OF BORINGS

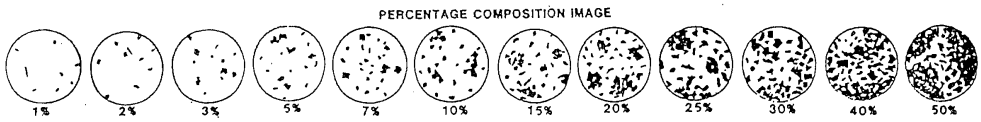
DAMES & MOORE

Date 4-19-05 Geologist L. Casebolt Drilling Co. Bayles Exploration Co. Hole No. MW-3A
Property White Mesa Mill Project _____ Unit No. _____ Sec. _____ Twp. _____ Rge. _____
County San Juan State Utah Location _____ Elev. _____

PAGE 1 OF 1
T.D. PROBE _____
T.D. DRILL 95.0
FLUID LEVEL _____

Depth	Sample Taken	Graphic Log	Alteration	Gamma Anomaly	Breccia Pipe	Lithology	Color of Wet Sample	Grain Size	Sorting	Angularity	Cement Matrix	Iron Oxide	Pyrite Amount	Pyrite Habit	Pyrite Alter.	Metallic	Non-Metallic	React.-10% HCL	Carbon Amount	Carbon Type	Remarks
0																					
2.5						Sndy sh	rdbn	vf-m	P								VS				Surface soil/Shale
5.0						Sndy sh	rdbn-tn	vf-m	P								VS				
7.5						Ss-sltst	rdbn	vf-f	m								VS				
10.0						qtz ss	vltgy-wh	f	w	sa							W				Upper Dakota Fm Ct @ approx 7.5 ft
12.5						qtz ss	lttn	f	w	sr							N				
15.0						qtz ss	ltgytn	f	cr	P	sr						N				sparse pk-wh chert grains
17.5						qtz ss	ltgytn	f	m	P	sr						N				
20.0						qtz ss	ltgytn	f	m	P	sr						N				
22.5						qtz ss	ltgytn	f	w	sr							N				
25.0						qtz ss	lttn	f	m	P	sr						N				sparse multicolor chert grains
27.5						qtz ss	lttn	f	m	w	sr						N				
30.0						qtz ss	tn	m-v	cr	P	sa						N				abnt. multi color chert grains
						qtz ss-peb	tn	m-v	cr	P	a						N				congl. zone abnt chert frags.
35.0						qtz ss-sh	tn-blgy	m	cr	P	sr						N				blgy shale frags
37.5						qtz ss,sh,l	blgy-tn	m-v	cr	P	sa						N				blgy shale frags, chert frags, congl. zone
40.0						qtz ss	tn	vf-v	cr	P	sa						N				chert frags
42.5						qtz ss	tn	m-v	cr	P	sr						N				
45.0						qtz ss,cgl	tn	f-v	cr	P	sr						N				congl. zone
47.5						qtz ss,cgl	tn	f-v	cr	P	sr						N				congl. zone
50.0						qtz ss	tn	m-v	cr	P	sr						N				
52.5						cgl, qtz ss	dkgytn	cr-v	cr	P	a						N				cgl. zone abnt. chert frags
55.0						qtz ss	tn	f-m	P	P	sr						N				
57.5						qtz ss, sh	vltgy	vf	w	r							N				sparse blgy sh
60.0						sltst, ss, cgl	ltblgy	f-peb	P	sa							N				cgl zone, sparse chert frags
62.5						qtz ss	lttn	f-cr	P	sr							N				some chert frags
65.0						qtz ss	ltgytn	f-v	cr	m	r						N				" " "
67.5						qtz ss	ltgytn	f-v	cr	m	r						N				" " "
70.0						qtz ss	ltgytn	f-v	cr	P	sr						N				qtz ss, begin coring
72.5						qtz ss	dkgybn	m-v	cr	f	sr		LT				N				abnt. chert frags
75.0						qtz ss	dkgybn	m-v	cr	f	sr		LT				N				
77.5						qtz ss	ltgy	vf-m	P	P	sa						N				abnt. wh chert grains
80.0						qtz ss	ltgy	vf-cr	P	P	sa						N				
82.5						qtz ss	ltgy	f-cr	P	P	sr						N				
85						qtz ss	ltgy	f-m	f	P	sr						N				
87.5						qtz ss	ltgy	m-v	cr	P	sa						VW				25% chert frags, trace blgy sh
90.0						qtz ss	gytn	vcr-peb	P	P	sa						VW				
92.5						cgl, qtz ss	gytn	vcr-peb	P	P	sa						N				Upper Brushy Basin Mbr. Ct @ 92.5 ft (from core)
95.0						sh, cgl	gybl-bn	cr-peb	P	P	sa						N				95.0 T.D.

PERCENTAGE COMPOSITION IMAGE



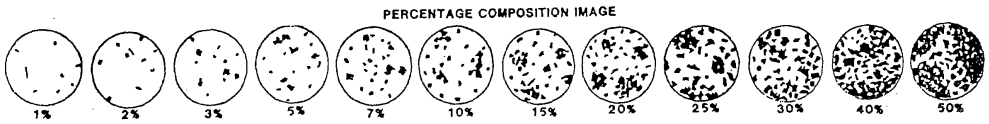
Date 4-4-05 Geologist L Casebolt Drilling Co. Bayles Exploration Hole No. MW-23
Property White Mesa Project MW-23 Unit No. _____ Sec. 32 Twp. _____ Rge. _____
County San Juan State Utah Location _____ Elev. ≈ 5608

PAGE 1 OF 2
T.D. PROBE _____
T.D. DRILL 132
FLUID LEVEL _____

REMARKS drilled with foam & air

Depth	Sample Taken	Graphic Log	Alteration	Gamma Anomaly	Breccia Pipe	Lithology	Color of Wet Sample	Grain Size	Sorting	Angularity	Cement Matrix	Iron Oxide	Pyrite Amount	Pyrite Habit	Pyrite Alter.	Metallic	Non-Metallic	HCL React.-10%	Carbon Amount	Carbon Type	Remarks
0																					
2.5						sltst	ltrdbn											m			Surface soil.
5.0						sndy sltst	ltrdbn											vs			
7.5						sndy sltst	ltrdbn											s			
10.0						qtz ss, sltst	ltpkbn											vs			
12.5						sltst, sh	ltpkbn											vs			
15.0						slty sh	ltpkbn											vs			
17.5						slty sh	ltpkbn											s			
20.0						sndy sh	ltpkbn											vs			
22.5						qtz ss, sltst	ltbn	f-m	p	sa								vs			Upper Dakota Fm. pt @ approx 21.0 ft
25.0						qtz ss	ltgybn	f	f	sa								vs			
27.5						qtz ss	ltgybn	f-m	f	sa	l							s			
						qtz ss, sh	gybn	vf-m	f	sa	l							vs			
32.5						qtz ss	ltgybn	m-cr	p	sa								s			
35.0						qtz ss	ltorbn	m-vcr	p	sa								m			
37.5						qtz ss	ltpkbn	m-cr	p	sa	l							s			
40.0						qtz ss	ltpkbn	m-cr	p	sa	l							m			
42.5						qtz ss	tn	m-vcr	p	a	l							m			abnt. light colored chert frags
45.0						qtz ss	tn	m-cr	f	sa	l							m			" light-dk chert frags.
47.5						qtz ss	tn	m-cr	f	sa	l							m			
50.0						qtz ss	tn	m-cr	f	sa	l							m			
52.5						qtz ss	lttn	vf-f	w	sa								s			very clean sand.
55.0						qtz ss	lttn	vf-m	w	sa								m			sparse chert fragments
57.5						qtz ss	ltgytn	f	w	sa								w			
60.0						qtz ss	ltgytn	f	w	sr								vw			
62.5						qtz ss	lttn	f-m	w	sr								N			
65.0						qtz ss	lttn	f-m	w	sr								N			
67.5						qtz ss	lttn	m-vcr	f	sa								N			abunt. light colored chert grains
70.0						qtz ss	lttn	f-vcr	f	sa								N			
72.5						qtz ss	lttn	f-m	f	sa								N			
75.0						qtz ss	ltgytn	f-m	f	sa								N			
77.5						qtz ss	ltgytn	f-m	f	sa								N			
80.0						qtz ss	ltgytn	m	w	sr								m			
82						qtz ss	ltgy	m	w	sr								N			
85.0						qtz ss	ltgybn	f-m	f	sr								N			
87.5						qtz ss	ltgybn	m	w	sr								N			
90.0						qtz ss	ltgybn	m	w	sa								N			
92.5						qtz ss	ltbn	m-cr	f	sa								N			abunt. light colored chert grains
95.0						qtz ss	ltbn	m	f	sa								N			
97.5						qtz ss	tn	f	w	sr								N			
100.0						qtz ss	ywtn	m	w	sr								N			
102.5						qtz ss	ywtn	f-m	f	sr								N			
105.0						qtz ss	ywtn	f	w	sr								N			
107.5						qtz ss	yewtn	vf-f	f	sr								N			
110.0						qtz ss	ywtn	f	w	sr								N			
112.5																					
115																					
117.5																					
120.0																					
122.5																					
125.0																					

PERCENTAGE COMPOSITION IMAGE

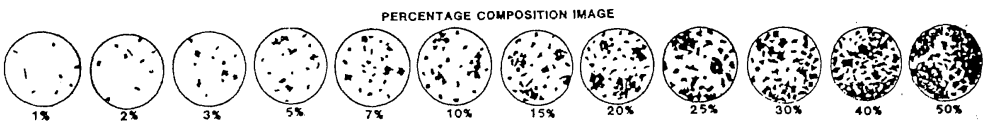


Date 4-4-05 Geologist L. Casebolt Drilling Co. Bayles Exploration Hole No. MW-23
Property White Mesa Mill Project MW-23 Unit No. _____ Sec. 32 Twp. _____ Rge. _____
County San Juan State Utah Location _____ Elev. _____

PAGE 2 OF 2
T.D. PROBE _____
T.D. DRILL 132
FLUID LEVEL _____

DEPTH	SAMPLE TAKEN	GRAPHIC LOG	ALTERATION	GAMMA ANOMALY	BRECCIA PIPE	LITHOLOGY	COLOR DRY OR WET SAMPLE	GRAIN SIZE	SORTING	ANGULARITY	CEMENT MATRIX	IRON OXIDE AMOUNT	PYRITE HABIT	PYRITE ALTER.	METALLIC	NON-METALLIC	REACT.-10% HCL AMOUNT	CARBON TYPE	REMARKS
125.0																			
127.5																			Upper Brushy Basin Mbr. ct @ approx 126.8'
130.0																			(from core log - no cuttings below 116.0')
132.0																			

PERCENTAGE COMPOSITION IMAGE



Core Log of Well No. MW-23

Cored Interval 49.0 ft. to 132.0 ft. T.D.

Depth	Description
49.0 - 59.5	Core recovery 100%, 49.0 - 59.5 ft., quartz sandstone, fine - medium grained, tan, non calcareous cement, cross-bedded, very uniform, most partings occur along cross beds and are mechanical (broken during drilling), no mineralized or weathered surfaces.
59.5 - 70.0	Core recovery 95%, 59.5 - 61.5 ft., quartz sandstone, fine - medium grained, tan, non calcareous, cross-bedded as above, lower contact is 45 degree angle erosional surface. 61.5 - 64.0 ft., quartz sandstone, very light gray, medium grained, very clean sandstone, no mineralized partings, grades downward into conglomerate. 64.0 - 69.5 ft., quartz sandstone, medium - grit sized grains, very coarse chert pebble conglomerate from 67.0 - 69.5 ft.. 69.5 - 70.0 ft., quartz sandstone, medium - coarse grained, very light gray.
70.0 - 80.0	Core recovery 90%, 70.0 - 70.5 ft., no core recovered, 70.5 - 73.5 ft., siltstone, very light gray- green, soft core, low angle parting with limonite at 73.0 ft.. 73.5 - 80.0 ft., quartz sandstone, light gray-tan to light pink-tan, limonite stained low angle parting at 73.7 ft., grit zone at 75.0 ft., and from 75.5 - 76.5 ft., small limonite blebs after sulfides at 77.5 - 78.0 ft., some manganese dendrites from 78.5 - 79.5 ft., calcareous zone from 78.5 to 79.5 ft..
80.0 - 90.0	Core recovery 87%, 80.0 - 84.5 ft., quartz sandstone, light gray-tan, fine - medium grained, non calcareous cement, no mineralized partings. 84.5 - 85.7 ft., quartz sandstone, pink-tan to yellow orange, medium - grit sized grains, abundant disseminated limonite at 85.5 - 85.7 ft.. 85.7 - 87.0 ft., core not recovered. 87.0 - 89.0 ft., quartz sandstone, pink-tan, medium - grit sized grains. 89.0 - 90.0 ft., quartz sandstone / gritstone, some disseminated limonite.
90.0 - 100.0	Core recovery 40%, 90.0 - 96.0 ft., no core recovered. 96.0 - 100.0 ft., quartz sandstone / gritstone, medium - very coarse, light tan - yellow-orange, abundant disseminated limonite from 97.8 - 98.2 and from 99.5 - 100.0 ft., mechanical partings along un-mineralized bedding planes, non calcareous.
100.0 - 110.0	Core recovery 100%, 100.0 - 102.3 ft., quartz sandstone, fine - medium grained, light yellow-orange to pink-tan, abundant limonite from 100.0 - 101.0, hematite from 101.5 - 102.3. 102.3 - 105.5 ft., quartz sandstone, fine - medium grained, light gray,

Core log of well MW- 23 Cont.

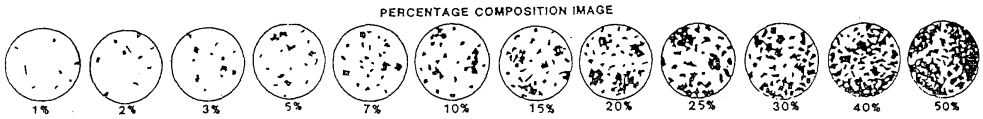
	unmineralized mechanical partings. 105.5 - 106.0 ft., disseminated limonite zone, yellow-orange. 106.0 - 110.0 ft., quartz sandstone, fine - coarse grained, light gray to orange-yellow.
11.0 - 120.0	Core recovery 100%, 110.0 - 111.2 ft., no core recovered. 111.2 - 113.5 ft., quartz sandstone / conglomerate, fine - grit size grains, light gray to light gray-green, green clay blebs plus dark chert fragments and pebbles. 113.5 - 114.5 ft., quartz sandstone / gritstone, abundant hematite mineralization, yellow-orange. 114.5 - 120.0 ft., quartz sandstone / gritstone, cross-bedded, gray-tan, chert fragments and pebbles at 115.0 - 116.5, 117.5 - 118.5, and 119.0 - 120.0 ft., non calcareous.
120.0 - 130.0	Core recovery 91%, 120.0 - 120.9.0 ft., no core recovered. 120.9 - 126.8 ft., quartz sandstone / gritstone, gray-tan to dark gray, dark gray chert fragments and pebbles, no mineralized partings observed, calcareous zone from 124.2 - 126.8 ft., upper Brushy Basin Mbr. contact at 126.8 ft. 126.8 - 129.7 ft., shale, green. 129.7 - 129.8 ft., gritstone as above.
130.0 - 132.0	Core recovery 100%, shale, green, non calcareous, T.D.

Date 4-5-05 Geologist L. Casebolt Drilling Co. Bayles Exploration Co Hole No. MW-28
Property White Mesa Mill Project _____ Unit No. _____ Sec. 33 Twp. 37S Rge. _____
County San Juan State Utah Location _____ Elev. ≈ 5618

PAGE 1 OF 1
T.D. PROBE _____
T.D. DRILL 110.0
FLUID LEVEL _____

Depth	Sample Taken	Graphic Log	Alteration	Gamma Anomaly	Breccia Pipe	Lithology	Color of Wet Sample	Grain Size	Sorting	Angularity	Cement Matrix	Iron Oxide	Pyrite Amount	Pyrite Habit	Pyrite Alter.	Metallic	Non-Metallic	HCL React.-10%	Carbon Amount	Carbon Type	Remarks
0																					
2.5						slt st-sh	lt tn-gy										VS				
5.0						slt st-sh	lt rd bn										VS				
7.5						slty sh	lt rd bn										VS				
10.0						slty sh	lt rd bn										VS				
12.5						slty sh	lt rd bn										VS				
15.0						slty sh	lt rd bn										VS				abunt selenite xls (gypsum)
17.5						slty sh	dk rd br										VS				
20.0						sh	rd br-lt yw gy										S				Significant Color Change
22.5						sh-qtz ss	vlt gy-wh	vf	f	f	sa						M				Upper Dakota Fm Contact @ approx 22.0 ft.
25.0						qtz ss	vlt tn-wh	f-	m	f	sa						N				
27.5						qtz ss	wh-lt tn	vf	f	f	sa	L					N				
30.0						qtz ss slt st	lt gy-lt tn	m-	cr	f	sa	L					N				
3						qtz ss	tn	m-	cr	w	sr						N				
35.0						qtz ss	yw tn	f-	m	f	sa						N				
37.5						qtz ss	lt tn	f-	m	f	sr						N				
40.0						qtz ss	lt yw tn		m	w	sr						N				
42.5						qtz ss	yw tn	m-	cr	f	sr						N				
45.0						qtz ss	lt yw tn	f-	cr	p	sa						N				
47.5						qtz ss	lt tn	m-	cr	f	sr						N				
50.0						qtz ss	lt yw tn	f-	m	f	sr						N				Moisture first noticed
52.5						qtz ss	yw tn	f-	m	f	sa						VW				
55.0						qtz ss	yw tn		m	w	sr						N				
57.5						qtz ss	yw tn		m	w	sr						N				
60.0						qtz ss	tn	f-	m	f	sr						N				
62.5						qtz ss	tn	m-	cr	f	sr						N				multi colored chert frags.
65.0						qtz ss-sh	tn-lt bn	m-	cr	f	sr						N				
67.5						qtz ss-sh	tn-lt bn	f-	m	f	sr						N				
70.0						qtz ss-cgl	tn-gy	m-	grit	p	sa						W				abunt multi colored chert frags.
72.5						grit st. cgl	rd gy tn	cr-	grit	p	a						N				" " " " "
75.0						grit st, cgl	rd gy tn	m-	grit	p	a						N				
77.5						qtz ss, grit	rd gy tn	m-	grit	p	a						N				
80.0						qtz ss	tn rd gy	f-	cr	p	sa						N				
82.5						qtz ss	tn	f-	cr	p	sa						N				
85.0						qtz ss	tn		m	f	sr						N				
87.5						qtz ss	tn	m-	cr	f	sr						N				
90.0																	X				No cuttings
92.5						qtz ss	tn	f-	m	f	sr						N				
95.0						qtz ss	tn		m	w	sr						N				
97.5						qtz ss	tn	m-	cr	w	r						N				
100.0						qtz ss	tn	m-	cr	w	r						N				
102.5						qtz ss cgl	tn-gy	m-	grit	p	a						N				
105.0						qtz ss cgl sh	tn-gy	m-	grit	p	a						N				upper Brushy Basin Ct @ appox 104.0 ft.
107.5						qtz ss, sh	tn-gy	m-	cr	p	a						N				(note contact from core)
110.0						qtz ss, sh	tn-gy	m-	cr	f	sr						N				T.D.

PERCENTAGE COMPOSITION IMAGE

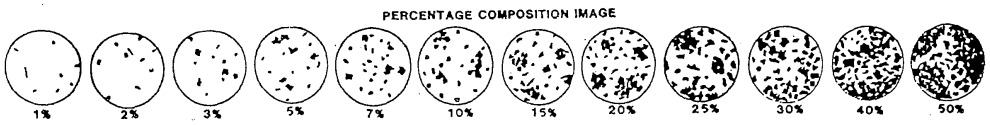


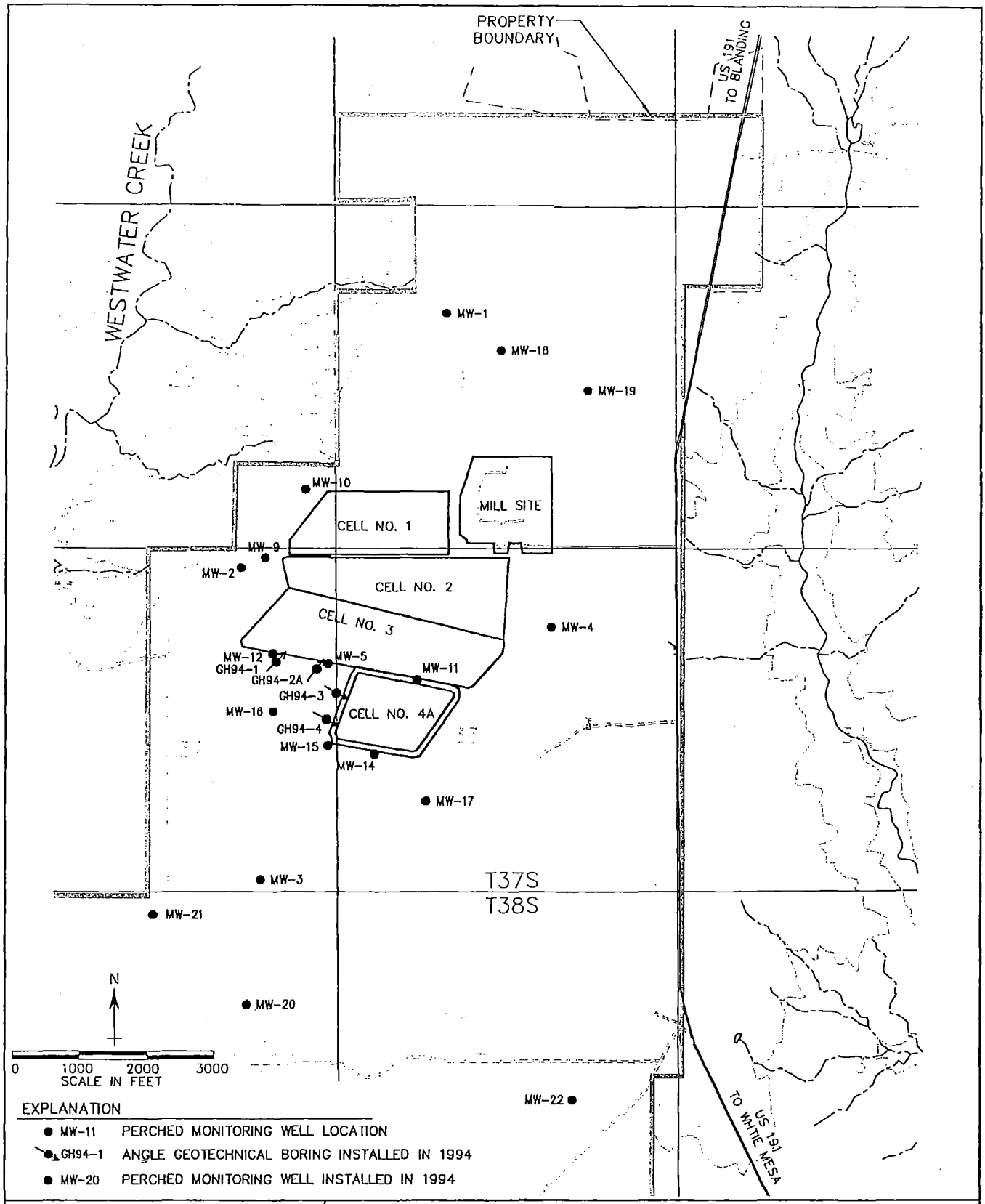
Date 4-4-05 Geologist L. Casebolt Drilling Co. Bayles Exploration Co. Hole No. MW-29
Property White Mesa Mill Project _____ Unit No. _____ Sec. 32 Twp. _____ Rge. _____
County San Juan State Utah Location _____ Elev. ≈5612

PAGE 1 OF 2
T.D. PROBE _____
T.D. DRILL 130.0
FLUID LEVEL _____

DEPTH	SAMPLE TAKEN	GRAPHIC LOG	ALTERATION	GAMMA ANOMALY	BRECCIA PIPE	LITHOLOGY	COLOR OF WET SAMPLE	GRAIN SIZE	SORTING	ANGULARITY	CEMENT MATRIX	IRON OXIDE	PYRITE AMOUNT	PYRITE HABIT	PYRITE ALTER.	METALLIC	NON-METALLIC	REACT.-10% HCL	CARBON AMOUNT	CARBON TYPE	REMARKS
0																					
2.5						Sndy sh	lt yw bn	vf													Dike fill material
5.0						Sndy sh	lt tn	vf													Dike fill material
7.5						Sndy sh	lt pk tn	vf													Dike fill material
10.0						Sndy sh	lt tn	vf													Dike fill material
12.5						Sndy sh	lt tn	vf													Possible in place material
15.0						Sndy sh	lt bn vf	f													
17.5						Sndy sh	lt tn vf	f													
20.0						Sndy sh, ss	lt tn vf	f													Upper Dakota Fm Ct @ approx 19.5 ft.
22.5						qtz ss, sh	tn bn	m-vcr	p	sa											
25.0						qtz ss	tn	m-vcr	p	sa		La									
27.5						qtz ss	yw tn	m-cr	p	sa		La									
30.0						qtz ss, cgl	gy tn	m-peb	p	sa											Some dk gy-blk chert frag.
32.5						qtz ss, cgl.	yw tn	f-peb	p	sa											" " " " "
0						qtz ss	tn	f-m	f	sa											
37.5						qtz ss, cgl	gy tn	f-vcr	p	sa											
40.0						qtz ss, cgl	lt gy tn	f-vcr	p	sa											
42.5						qtz ss	lt tn-wh	vf-cr	p	sa											
45.0						qtz ss	lt tn-wh	vf-m	p	sa											
47.5						qtz ss	vlt tn	f-m	f	sr											
50.0						qtz ss	vlt tn-wh	vf-m	f	sr											
52.5						qtz ss	wh	m	w	r							N				sparse frag. blgn sh.
55.0						qtz ss	vlt gy	m-cr	f	sr							N				some multicolored chert frag.
57.5						qtz ss	vlt gy	m	w	sr							N				
60.0						qtz ss	vlt gy-wh	m	f	sr							N				
62.5						qtz ss	gy-pk	m-cr	f	sa							N				30% chert frags. & grains
65.0						qtz ss	lt gy tn	f-cr	p	sa		LT					N				
67.5						qtz ss	lt yw gy	f-peb	p	sa							N				some dk gy chert frags.
70.0						qtz ss	lt gy	f-m	f	sa							N				
72.5						qtz ss	lt gy	f-m	w	sr							N				
75.0						qtz ss	lt gy	m	w	sr							N				
77.5						qtz ss	gy	m	f	sa							N				
80.0						qtz ss, cgl.	gy	m-peb	p	sa							N				cgl. zone, dk chert frags.
82.5						qtz ss	lt yw gy	m-cr	f	sr							N				
85.0						qtz ss	lt gy	vf-m	f	sr		LT					N				
87						qtz ss	lt gy	m-cr	f	sr							N				some chert frags.
90.0						qtz ss, cgl.	lt gy tn	m-peb	p	sa							N				cgl. zone, chert frag.
92.5						qtz ss	lt gy tn	f-cr	p	sa							N				abnt chert grains
95.0						qtz ss	vlt gy	m	w	sr							N				
97.5						qtz ss	vlt gy-wh	m	w	sr							N				
00.0						qtz ss	lt gy tn	f-m	f	sr		LT					N				
02.5						qtz ss	vlt gy tn	m-vcr	p	sa							N				some multicolored chert frags.
05.0						qtz ss	vlt gy	m-vcr	p	sa							N				some multicolored chert frags
07.5						qtz ss	wh	f-cr	f	sr							N				
10.0						qtz ss	wh	m	w	r							N				
12.5						qtz ss	wh	f-m	w	r							N				
15.0						qtz ss	wh-vlt gy	f-m	w	sr							N				
17.5						qtz ss	wh	f-m	w	r							N				
20.0						qtz ss	wh	f-m	w	r							N				
22.5						qtz ss	wh	f-m	w	r							N				
25.0						Sh, qtz ss	dk gy bl-pp	m	p	sr		T	C				N				Upper Brushy Basin Mbr. Ct @ approx 123.0 tr. pyrite

PERCENTAGE COMPOSITION IMAGE





APPROXIMATE LOCATIONS ANGLE GEOTECHNICAL BORINGS AND PERCHED MONITORING WELLS MW-20, MW-21, AND MW-22

Approved	Date	Revised	Date	Reference:	FIG.
SS	6/12/01			71800019	1

PEEL Environmental Services

BORING LOG

Boring No. GH-94-1

Project: White Mesa | Geologist: PEEL | Sheet No. 1 of 3

Client: Energy Fuels | Date: 8/11/94 | Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
		Fractures & Partings	0.0 – 14.0 Sand missing core	
	5			
	10		Core #1 10' to 20' Rop 4' Sand No core RQD 1'<4" = 50%	Rec 6ft of 6ft
	15		14.0 – 18.2 Ss. qtz lt gy m.g. subrnd, arg to fe stn tr lign poro	
			18.2 – 19.0 Ss. as ab gry brn with abundant fe stn faint x-bed	
	20		19.0 – 20.0 Ss as ab >> c gnd conglomeratic in pt.	
friable broken		parting (bedding)	20.0 – 20.6 Ss qtz m-lt gy, subrnd v. arg f.g.	Core #2 20–30' Rec 100% RQD 1.5'<4" = 85%
			20.6 – 21.0 Ss qtz m-lt gy, m grn subrnd, v. frin	
	25	partings (bedding)	21.0 – 26.0 Ss, qtz lt grn gy, f. gnd >> c. gnd in pt. subrnd, thin x-beds, pting along x-beds occ pebb. poss vert frac at 25.2' clay filled follows bedding	
		partings (bedding)		
	30		26.0 – 28.0 Ss as ab fe stn along some x-beds	
			28.0 – 30.0 Ss as ab more fe stn, cong lense @ 29' two thin clay partings, pebbles are lithic frags	
		Filled vert fracture	At 29.7 – 30.0 Ss is dk brn vg in poro ~~[illegible]~~ oil stn	
	35		Core #3 30'–40' Rec 7.5' RQD 29" > 4" long (51%)	
			30.0 – 30.5 Ss, qtz, m. to c. gn, subrnd, occ pebb. (lithic), gd v/gran poro. oil stn. x-bedded.	
		Small 2" hairline fracture fe stn	30.5 – 33.0 Missing core	
	40		33.0 – 34.5 Sh dk gry, platy bedding plane parting clty in part soft	
		parting (bedding)		
		parting (bedding	34.5 – 35.0 Ss. qtz, lt gy to buff, f. m. grn., subrnd arg. thin bedded, fe stn	
	45		35.0 – 36.5 Ss as ab m to c gnd, occ pebb clasts (lithic) 1 is 2" in dia.	
			36.5 – 40 Sh dk gy to m gy sft fissil	
			Packer Test #1 34–40 (21 – 25)	Hole dia = 3.0"
	50	parting (bedding	2:10 PM 90 PSI 0.3 gpm	
			2:15 PM 90 PSI 0.2 gpm	
			2:20 PM 90 PSI 0.2 gpm	
			2:25 PM 90 PSI 0.2 gpm	5.7 x 10⁻⁶ cm/sec (over)

Core #4 40 - 50 Rec 9.8 RQD = 1' < 4" = 88%

0.0 - 40.5 Sh m.gy to dk gy fissile sandy at top

0.5 - 50.0 Ss, qtz lt buff to lt brn to yellow brn, m gnd occ c grn, faint thin bedding, some solution vugs from fossils (brac) along bedding plane, good to excel i/gran poro sl. org

Packer Test #2 40.0 - 50.0 (25 - 32)

3:10 PM 30 psi 1.4 gpm

3:15 PM 30 psi 1.0 gpm 4.1 x 10^-5 cm/sec

3:20 PM 30 psi 1.0 gpm

3:25 PM 30 psi 1.0 gpm

3:30 PM 30 psi 1.0 gpm

Core #5 50 - 60 Reco 10.0' RQD = 0.5' < 4" = 95%

0.0 - 56.6 Ss. qtz, lt gy to buff, m. to c. gnd, ≠ subang - subrnd, org, buff color due to festn. occ small lithic pebble, one lith frag 1" dia, good i/gran poro. Large ½" ~~clay~~ shale clasts at base faint thin x-bedding parting occurs along bedding

56.6 - 60.0 Ss, qtz lt gy (buff near top where some fest occurs) f. to m. grn. subrnd sl. org. occ c.g or pebb clast. faint x-bedding. faint ≠ 2" fracture at top (sealed) does not continue into ~~[illegible]~~ unit above, fair i/gran poro Top Brushy Basin 56'

Core #6 60 - 70 Rec 10' RQD 100%

[illegible] - [illegible] Ss. qtz, lt gy f. to m grn subrnd, sl org faint x-bedding occ c.g. lithic clast, f. i/gran poro.

0.5 - 65.0 Ss ab grading downward to conglomerate & conglomeratic ss. pebble lithic clasts becoming coarser at base SS subrnd to rnd pebbles angular good i/gran poro

8.0 - 70.0 Ss. qtz, lt gy, vf to mg, v org hd tight faint bedding

Core #7 70 - 80 Rec 10' RQD 2' < 4" = 80%

0.0 - 80.0 Ss. qtz lt gy occ lt brn gy fg (occ lith pebb.) poorly cemented subround to round Appears massive near base. sl. fria [illegible] festn 8/12/94

Packer Test #3 (70 - 80) (45 - 51)

8:00 AM 30 psi 1.7 gpm

8:05 AM 30 psi 1.8 gpm : 8 x 10^-4 gm/ft^2

8:13 AM 30 psi 1.7 gpm K: 5.6 x 10^-5

8:17 AM 30 psi 1.7 gpm

Core #8 80.0 - 90.0 Rec 10' RQD = 2.2' < 4" = 78%

[illegible] lt gy, fine to m. gnd, subrnd, >>> more m. grn at base (pebble size lithic frag, org, [illegible] abundant in places), scattered at faint x-bedding, in places ~~[illegible]~~ good i/gran poro.

PEEL Environmental Services

BORING LOG

Boring No. GH-94-1

Project:

Geologist :

Sheet No. 2 of 3

Client:

Date: 3/12/94

Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
		parting (bedding)	Core # 9 90-100	RQD 1'<4"
			Ss, qtz as ab. pinkers at btm frag., faint x-bedding,	less pebble
	55		Note lost circulation at	95' maybe a fracture [illegible]
		parting (bedding)	Packer Test # 4 92-100	(59x-64+) depth corrected
	60		9:20 30 psi 13.5 gpm	
			9:45 30 psi 13.0 gpm	4.4 x 10^-4 cm/sec
			9:50 30 psi 13.0 gpm	
			9:55 30 psi 13.0 gpm	
	65		Core # 10 100 - 110 Rec 3'	RQD 1' > 4"
		100 - 102.5	Ss. qtz as ab sect lithic	pebbles ang lt gy to wh)
	70		faint x-bedding	
		102.5 - 102.7	sltsln tan, hd. arg sl sndy	
		102.7 - 110.0	Lost core may be conglomerate	
			Packer Test # 5 103-110	
	75		10:40 30 psi 15.5 gpm	K = 5.5 x 10^-4 cm/sec
			10:47 30 psi 15.5 gpm	
			10:55 30 psi 15.6 gpm	
			11:00 30 psi 15.5 gpm	
	80		Core # 11 110-120 Rec 6'	RQD 8"<4" = 54%
			110-120 Ss, qtz, f-m gn. subrnd sl arg	
	85		faint bedding planes, Bedding	plane parting @
			113.5 & 117.0 Thin conglomeratic (lithic pebbles)	
			@ 117.5 and at base of core lithic frag to 3/4	
	90		Core # 12 120-130 Rec 8.5'	RQD 3'<4" 55%
		Joint?	120-130 Ss as ab Top 0.5'	conglomeratic fine pebble
			lithic frags. Bottom 3.5'	conglomeratic & lith pe
	95	[illegible] joint?	to 1/4" Thin x-bedding throughout.	
			Core # 13 130-140 Rec 8.5'	RQD 5.5' > 4"
			130-140 Ss as ab, cong as ab @ 120-121.5, 123-123.5, 126.5	
			-130. Vertical joint at 121.1'	and 125' hairline [illegible]
	100	[illegible]		

over

Packer Test # 6 130 - 140'

1:45 PM	30 psi	4.5 gpm	
1:50 PM	30 psi	5.0 gpm	K = 1.2 x 10^-4 cm/sec
1:55 PM	30 psi	5.0 gpm	
2:00 PM	30 psi	5.1 gpm	
2:05 pm	30 psi	5.0 gpm	

Core # 14 140 - 150 Rec 5' RQD 4" < 4" - 4#

Top of Brushy Basin 146'

140 - 146 Ss, as ab >>> congl at bottom 1.5' Cong is yellow brn sandy pebble

146 - 150 shale grn wavy hd blocks ~~[illegible]~~ sl. fiss

Packer Test # 7 146 - 150

Could not get a good packer seat

Core # 15 150 - 160 - Rec 0'. Core barrel hung in rods

1/13/84 9 AM When we pulled rods in order to ream and clean out hole had trouble pulling past 30 - 33 feet where lost core was. Pinned barrel. Appears to be a 3-foot shale zone soft, gy brn swelling.

1/14/84 5:30 AM

Reaming hole

Packer Test # 8 162 - 165

Could not get packer to seat

Packer Test # 9 163 - 165

12:45	30 lbs	No take
12:50	30 lbs	No take
1:00	30 lbs	No take

Increased psi to 60 psi test acted as thought packer was leaking.

Core #16 160 - 165 Rec 5'

160-165 Ss lt grn qtz, m.g. subrnd arg to vu grg >>> shaley grn blky brittle sandy in part wavy bedding plane parting tension release parting

TD = 165

PEEL Environmental Services

BORING LOG

Boring No. GH-94-1

Project:	Geologist :	Sheet No. 3 of 3
Client:	Date:	Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
	105	lost core Fractures? No sine conglomerate?		
	110			
		parting (bedding plane)		
	115			
		parting (bedding plane		
	120	hair line joint		
	125	hair-line joint		
	130			
	135			
	140			
	145			
	150			

PEEL Environmental Services

BORING LOG

Boring No. GH-94-2A

Project: White Mesa | Geologist: PEEL | Sheet No. of 3

Client: EFN | Date: 8/15/94 | Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
			Core #1 10-20 Rec 10' RQD = 99%	
			10-20 Ss, gtz, yellowish brn gy ccc brn gy m- to v.c.g. v.g. i/gran poro. thin x-bedd bedding plane parting vertical joint (18.5') sealed washout by drilling fluid. testn	
	5		Core #2 20-30 Rec 10' RQD = 99%	
	10		20.0-26.6 Ss, gtz lt gy to brn (testn) f. to v.c.g. (congeratic from 25-26 ang to sub ang lithic frags) sub rnd, ang tr in/gran poro bed plane part. good x-bedding	
	15		26.0-26.5 Congl lith pebble ang to sub ang, v. sndy (gtz) at top to v. arg. at base.	
		BPP	26.5-30.0 Ss, gtz, m. to v.c. gn sub rnd, cong at 29-30'. good x-bed, tr arg cement g. i/gran poro	
		v. joint sealed		
	20	BPP		
		BPP	Core #3 30.0-40.0 Rec 9'	RQD 86%
		BPP	30.0-30.3 Sndy Cong as ab	
	25		30.3-33.0 Ss, gtz yellow gy, m g sub rnd v arg 5 ft f sstn on ptgs	
			33.0-36.0 Ss gtz grn gy f. to v.c.g. sub rnd r. grns occ sub ang. faint bedding. grading into conglomeratic ss at base 6" poss v. joint at 33.5' lith pebls	
	30			
		v. joint ?? sealed	36'-40' Ss as ab cong in part lith frags pebble size	
	35		Packer test #1 34-40' Start test 11:40	
			11:45 30 psi 0.35 gpm	
			11:50 30 psi 0.36 gpm	
			11:55 30 psi 0.36	K = 2 x 10^-5 cm/sec
	40		12:00 30 psi 0.36	= 3 x 10^-4 g/m/ft^2
			12:05 30 psi 0.36	
			Packer Test #2 32.5-40	
	45		12:10 30 psi 12 gpm	
			12:15 30 psi 12 gpm	K = 7 x 10^-4 cm/sec
			12:20 30 psi 12 gpm	= 1 x 10^-2 g/m/ft^2
			12:25 30 psi 12 gpm	
	50		Note water coming out of	

GH-94-2 hole Test not accurate

ill Hole No. GH-94-2A

Sheet No. 2 of 3

Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
			Core #4 - 40-48 Rec 0.5'	Bit worn
			47.5-48.0 Ss [illegible] lt gy f-m grn subrnd arg occ pebble (lithic) [illegible] base	
	55		Core #5 48.0-50 Rec 1 ft	
			Ss os ab congl (lithic ang to subang)	Carbide bit.
	60		Core #6 50-56 Rec 1 ft	
			55.0-55.9 Ss os ab cong as ab	
			55.9-56.0 Cong pebble gy buff lithic subang to subrnd sndy arg.	
	65		Core #7 56.0-66.0 Rec 1.3 ft	
			Ss qtz lt buff gy f grn. subrnd arg fe stn faint x-bed. congl. in part (lithic frags, subang)	
	70		Core #8 66.0-70 Rec 3.7 ft	RQD
			66.0-70.0 qtz, lt buff gy, f. to m.gr. occ. v c.g. subrnd to rnd arg faint x-bed >>> v frio at base.	
	75		Core #9 70-80 Rec 8.5 ft	RQD < 50%
			70-80 Ss qtz yellow buff f. to m grn, occ v.c.g., subrnd, arg. fe stn. x-bed rock v frio @ 79 & 80 ft. Poss v. frac 74.5' no fe stn along fract. @ 76.4' @ 78.4 joints are closed but water coursing has opened them	
	80			
	85		Core #10 80-90 Rec 8.0'	
			80-90 Ss qtz m.g. occ v.c.g. occ cong. subrnd Core missing	
			84-87' x-bed V joint @ 83.9 closed	Stopped [illegible]
	90		Core #11 90-100 Rec 3.5'	
			90 to 96.5 Missing Core probably cong.	
	95		96.5-97.7 Conglom. lithic pebble lt buff gy subang to subrnd. v. sndy congl ss in pt.	
		v. joint closed	97.7-100.1 Ss. qtz lt yellow gy f. gnd subrnd arg v. joint at 98.5	
	100			

Packer Tests on back

Packer Test # 3 50 - 56'

1:50 PM	30 psi	1.5 gpm
2:00 PM	30 psi	1.4 gpm
2:05 PM	30 psi	1.4 gpm
2:15 PM	30 psi	1.4 gpm

$K = 1 \times 10^{-3}$ gl/m/ft^2
$= 8 \times 10^{-5}$ cm/sec

Packer Test # 4 60 - 70'

10:40	35 psi	1.8 gpm
10:45	35 psi	1.1 gpm
10:50	35 psi	1.1 gpm
10:55	35 psi	1.1 gpm
11:00	35 psi	1.1 gpm

$K = 5 \times 10^{-4}$ gl/m/ft^2
$= 4 \times 10^{-5}$ cm/sec

Packer Test # 4 70' to 80'

11:35	30 psi	5.5 gpm
11:40	30 psi	4.4 gpm
11:45	30 psi	4.45 gpm
11:55	30 psi	4.4 gpm

$K = 2 \times 10^{-3}$ gl/m/ft^2
$= 1 \times 10^{-4}$ cm/sec

Packer Test # 5 80' to 90'

2:35	30 psi	5.8 gpm
2:40	30 psi	3.5 gpm
2:45	30 psi	3.4 gpm
2:50	30 psi	3.4 gpm
2:55	30 psi	3.4 gpm

$K = 3 \times 10^{-3}$ gl/m/ft^2
$= 2 \times 10^{-4}$ cm/sec

Packer Test # 6. 138 - 144

2:25	90 psi	No take
2:30	90 psi	No take
2:35	90 psi	No take

Tried to increase to 120psi @ 100 lost packer seat.

Drill Hole No. GH-94-EA

Sheet No. 3 of 3

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
	100	v. joint (closed)	Core 12 100-110 Rec 10'	RQD = 80%
		100.0-101.0	Ss qtz lt yell gy, f. gnd, subrnd to rnd, arg thin 1/4" to 1" cong (lithic) x-beds. Closed v. joint 100.5'.	
	105	102.0-103.0	Congl. lithic, lt gy pebble subarg to subrnd sndy to v. sndy. tr fe stn tr. i/gran poro.	
		103.0-105.5	Ss. lt gy f. tom gnd occ v.c.g. rnd to subrnd sl. fria. i/gran poro occ cong (lithic, pebbles) x-bed (faint)	
	110	105.5-110.0	Ss qtz lt brn gy, f. gnd subrnd, thin x-bed tr fe stn. hd.	
	115		Core 13 110-120 Rec 10' RQD Note: core was 1 piece unbroken	100%
		110.0-130.0	Ss. qtz lt brn gy occ grn cast, v.f. to f.g occ v.c.g, subrnd tr. i gran poro. tr dead oil stn. thin x-beds	
	120		Core 14 120-130 Rec 10' RQD 100% Note: core was 1 piece unbroken	
		120.0-130.0	Ss. qtz. lt yellow gy, v.f. to f. gnd subrnd, becoming v.c.g. to sl. cong in part soft fria, core broke while placing into box. sl. arg good i gran poro. tr fe stn.	
	125		Core #15 130-134 Rec 4'	RQD <50%
	130		Ss qtz lt gy m gnd subrnd sl arg tr i gran poro faint x-beds fe stn	
		134-138	Core #16 134-140 Rec 6'	RQD <50%
	135	v. Joint (closed)	Ss as ab good x-beds bedding plane parting fe stn	
		138-140	Shale, grn, platy waxy.	Brushy Basin Top 138'
		Brushy Basin	Core #17 140-150 Rec 3'	
	140		Shale, dk grn to blk, red, waxy, blocky.	
			Core #18 150-155 Rec 5'	RQD 90%
	145		150-155 Clstn. dk grn waxy trace red waxy sndy to v. sndy blks.	
	150			

PEEL Environmental Services

BORING LOG

Boring No. GH-91-3

Project: [illegible]

Geologist: PEEL

Sheet No. 1 of 3

Client: [illegible]

Date: 3/13/94

Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
			Core # 1 10-20 Rec 10' RQD	93%
			10.0-19.1 SS qtz m buff f. to m grn subrnd, arg fe stn tr dead oil stn Tr c. to v. c grns from 16.5 to 19.1 x-bedding bedd plane parting	
	5		19.1-19.7 Claystn, gy brn, soft pliable	
			19.7-20.0 SS. qtz, m buff, f. grn. subrnd. - arg. bd	
	10		Core # 2 20-30 Rec 10' RQD =	95%
			21.0-20.8 SS. qtz m. buff f. grn subrnd. arg fe stn. vert fiss filled w claystn as described above.	
	15		20.8-22.4 Cong lithic buff gy, pebble subang and g arg fe stn. x-bedd?.	
			22.4-22.8 Clstn grn brn soft w/0.1' congl as ab at base pebbls to 1½"	
	20		22.8-30 SS qtz m buff mottled gy, f. to m grn. subang to subrnd tr arg fe stn g. i/gran & pp poro. x-bedd.	
	25		Core # 3 30-40 Rec 10' RQD	100% Note 28-30 filled pool [illegible] into bore
			31.0-40.0 SS qtz m to lt yellow buff m.g occ c. grn. fe stn oil stn x-bedd. 38-40 [illegible] poorly cemen v.g i/gran poro. arg in pt.	
	30		Core # 4 40-50 Rec 10' RQD 98%	
			40.0-40.8 SS qtz gy brn, m-c g occ lithic pebb frag, arg. subang g. i gran poro. thin 1" shale [illegible] near base	
	35		40.0-50.1 SS qtz, lt gy brn. f to m-grn. subrnd arg tr fe stn occ v.c g cong lith frag thin x-beds	
			Core # 5 50-60 Rec 9.4' RQD	80%
	40		50.0-53.7 SS qtz m to lt gy v.f g to f g. subang, v. arg. thin bedd	
			53.7-60.0 SS qtz lt brn [illegible] m to c.g., fe stn moss v.g i/gran poro. occ pebl frag.	
	45		Core # 6 60-70 ft Rec 10' RQD	88%
			61-65.7 SS qtz lt brn gy occ lt grn gy f to m g subrnd, g. i gran poro [illegible]	
	50			

Packer Test #1 155 - 161

11:30	60 psi	.1 gpm	Test questionable may have water coursing past packer. Water pressure surging
11:35	60 psi	.1 gpm	
11:40	60 psi	.1 gpm	
11:45	60 psi	.1 gpm	
11:50	60 psi	.1 gpm	

Packer Test #2 138-144

12:03	30 psi, 60 psi no take	
12:05	90 psi	0.1 gpm
12:10	90 psi	0.1 gpm
12:15	90 psi	0.1 gpm
12:20	90 psi	0.1 gpm

Drill Hole No. GH-94-3

Sheet No. 2 of 3

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
	50		Core # 6 cont 65.7 - 68' Ssasab brngy abrnd fe stn 68 - 70 Ss qtz lt gy f. to m.g occ v.c.g subrnd g i/gran poro massive hard.	
	55		Core #7 70-80 Rec 10' RQD 96 % 70.0 - 75.5 Ss qtz, lt gy, m. to v.c.g, subrnd pebs at 73.2 & base of unit. faint x-bedding tr fe stn sl arg. hd.	
	60		75.5 - 80.0 Ss qtz, yell brn, f-mg subrnd fe stn frio poor cem v.g. i/gran poro. massive	Burro Canyon ?
	65		Core # 8 80-90 Rec 6.3'	RQD < 50%
	70		80 - 90 Ss qtz grn brn f.-m.g. subang - subrnd, sl arg cong in places dead oil stn #1" clstnct base	
			Core # 9 90-100 Rec 9.9' RQD 99%	
	75		90.0 - 96.1 Clstn dk grn gy occ thin bedding v. slty & sndy SCt sharp contact with unit below. 92.2 is bed plane parting w fe stn	
	80		96.0 - 97.8 Ss, qtz, brn, f. to c.g. subang arg fe stn. thin x-bed	
	85		97.8 - 100 ss. qtz yellow buff f-m g. v.c.g to pbble cong near top and base massive arg sub ang frio.	
			Core # 10 100-110 Rec 10' RQD < 50%	
	90		100.0 - 110.0 Ss, qtz, yellow buff f.-m.g. subang occ v.c.g. fria to v. fria. i/gran poro. rec pebble (lith)	
			Core # 11 110. - 120 Rec 6.5'	RQD < 50%
	95		120.0 - 120.0 Ss qtz lt yellow gy f.-m.g. subrnd, sl arg g/gran poro. fria to v. fria. 1 x-bed occ v.c.g bed	
			Core # 12 120-130 Rec 10'	RQD 98%
	100		120 - 123.7 Ssasab 123.7 - 126.0 Cong, lithic, pebble grnish buff, subang, sandy 126.0 - 127.1 Ss qtz, lt grn gy v.f.g thin bedded. Sharp upper & lower contact	

Drill Hole No. GH-94-3				Sheet No. 3 of 3
Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
	100		Core # 12 Cont'd	
			127.1 - 128.1 Ss. qtz lt brn gy, v.f. to f.g. subrnd tr arg cem, tr i/gran poro fe stn f sint x-bed	
	105		128.1 - 130 Ss. qtz, lt gy f.-mg x-bedd g i/gran poro	
			Core # 13 130-140 Rec 10' RQD	= 98%
	100		130-140 ss qtz, lt grn gy, f. to mg upper 10" c.g. to v.c.g. subrnd sl. arg. cem g. i/gran poro thin bedded tr. fe stn	
			Core # 14 140-145 Rec 5' RQD	= 88%
	115		140 - 142.5 Ss qtz, lt gy, f.-mg sch-g. tr thin x bed (v. frac. @ 141.3 ?? closed)	
			142.5-145 Clay stn, dk grn, waxy blky.	Top Brushy Basin 142.5'
	120		Core # 15 145-150 Rec 5' RQD	< 50%
			145-150 Clstn m-dk grn occ. dk rd patches, waxy, sl. slty slg sndy in pt.	
	125		Core # 16 150-155 Rec 4' RQD	< 50%
			150-155 - Clstn dk grn to rd. waxy, sl slty in pt, blocky,	
	130		Core # 17 155-160 Rec 5' RQD	= 80%
			155-160 Clstn m. grn occ dk red splotch, waxy blocky. From 158-160 >>> v. sndy number of hairline fractures all filled, occ fissile.	
	135		Core # 18 160-165 Rec 5'	RQD 100%
			160-165 Clstn m.grn. v. sndy thin hair-like frac. filled w gyp.	
	140			
		Burro Canyon		
		Brush Basin		
	145		TD = 165 8/19/94	
	150			

PEEL Environmental Services

BORING LOG

Boring No. GH-94-4

Project: White Mesa | Geologist: | Sheet No. 1 of 3

Client: Energy Fuels Nuclear | Date: 8/19/94 | Project No.

Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
			Core #1 10-20 Rec 6' RQD = <50%	
			14' top Dakota loose sand & slt. above	
			14-20 Ss. qtz. buff, f.-m.g. subrnd arg. [illegible], thin x-beds at top pyrite mineralization.	
	5		Core #2 20-30 Rec = 7.5' RQD = 50%	
			20-26.5 Ss qtz buff f-m.g. occ c.gn to v.c.gr., subrnd fe stn thin x-beds parting along beds lith frags where v c.g.	
	10		26.5-28.5 Missing Core	
			28.5-30.0 Clstn, yell buff sft bldg ss sandy at base	
	15		Core #3 30-40 Rec 10' RQD = 100%	
			30-40 Ss. qtz yel buff f-m.g. c, to v.c.g at top 4". Thin x-beds thin clay parting at 4". f. igran porv. fe stn arg cem.	
	20		Core #4 40-50.0 Rec 9' RQD = 87%	
			40.0-42.9 ss. qtz, buff, m.g. arg cem thin x-bed	
	25		42.9-44.1 Ss qtz lt gy to wh, f-m.g. arg cem, moss.	
			44.1-50.0 ss, qtz buff to lt gy to wh. v.f. to m.g., occ v.c.g occ lith pebbles in top 1.5'. clay stn layer 1" at base thin x-beds	
	30		Core #5 50-60 Rec-10' RQD = 100%	
			50-60 Ss qtz lt.gy. buff in pt., v.f. to f.g. subrnd arg. cem. frin. thin x-bed. tr fe stn. occ v.c.g. occ lithic peb.	
	35		Core #6 60-70 Rec 10' RQD = 100%	
			60.0-70.0 Ss, qtz, lt gn gy. f. to m.g. subang to subrnd, slty in pt sl. frin tr fe stn occ c.g. occ lithic peb. massive.	
	40		Core #7 70-80 Rec 8' RQD = 65%	
			70-80 Ss qtz, lt gn gy to yell buff. to lt buff, m.g. subrnd to rnd arg tr fe stn. [illegible] arg. lithic, [illegible] massive x bed in lower 1'. [illegible] core 78-79.5, tr igran porv	
	45			
	50			

Drill Hole No. 6W-94-4

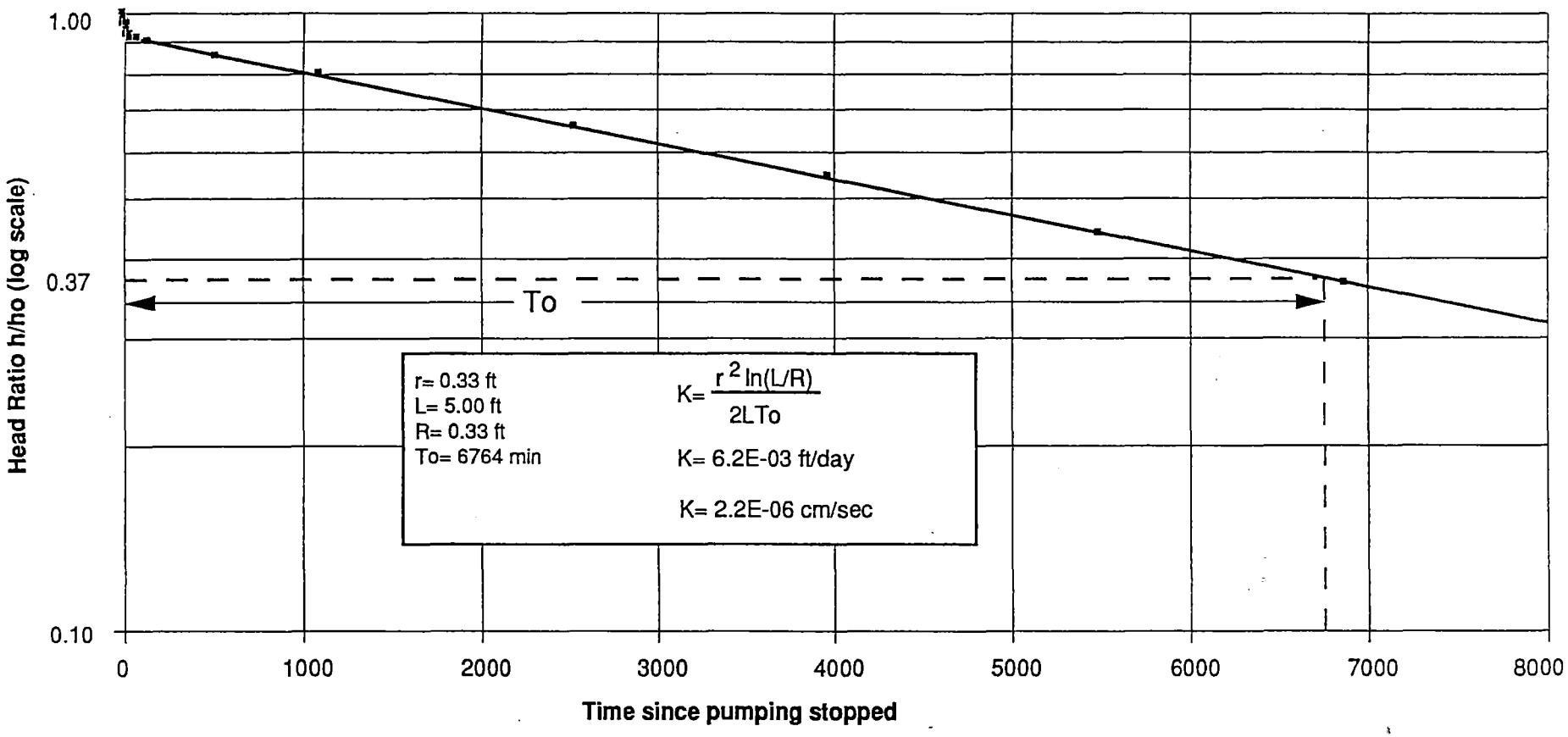
Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
	60		Core #6 80-90 Rec 10' RQD	D = 100%
			80.0 - 88.0 Ss, qtz m. to lt. buff f.-m.g. occ v.c.g. occ lithic pebb. tr sta tr igneous poro faint thin x-beds. Silica concretions (pyrite)	Top Bucky = 88'
			Core #9 90-100 Rec 6.5' RQD	D = 50%
			90.0 - 90.7 Ss qtz buff m.g. subrnd to rnd, tr festn tr d.p.s.	
	10		90.7 - 91.5 Conglith. pebb. subang to subrnd qrn brk.	
			91.5 - 94.2 Ss qtz drn gy m.g. to f.g. arg subrnd v. arg at base grading into clstn below	
	55		94.2 - 95.2 clstn gy grn sndy in pt. blocky tr festn along bedplanes	
			95.2 - 98.0 Missing core	
			98.0 - 100 Clstn, gy grn silty sit in pt.	
			Core #10 100 - 110 Rec 9.7'	RQD = 60%
			100.0 - 103.3 Clstn gy grn, blky firm sndy >>> Ss qtz, gy grn, f. to m.g. subrnd arg to v arg occ v.c.g. near base of unit. ~~[illegible]~~	
			103.3 - 104.1 Ss, qtz grn gy, m.g. subrnd occ lithic pebb g igneous poro	
			104.1 - 110.0 Ss. qtz lt gy, subrnd m.g. arg. thin x-beds v.c.g along bedding planes g. igneous poro	Burro Canyon 104.2
			Core #11 110-120 Rec 10'	RQD = 97%
			110-120 - Ss qtz yell brff fine to m.g. subrnd arg thin x-bed. Occ v.c.g. along bedplanes. Occ thin congl zones lithic sndy subang to subrnd	
			Core #12 120-130 Rec 10'	RQD = 98%
			120 - 124.1 Ss, qtz yell buff, f.-m.g. subang, thin x-beds. Occ v.c.g. & lithic pebbs tr pp poro	
			124.1 - 124.2 Clstn dk grn gy sharp upper & lower contact	
			124.2 - 129.0 Conglith. m. brn gy pebble, subang to subrnd sndy to very sndy. thin x-beds.	

Drill Hole No. GH-94-4				Sheet No. 3 of 3
Well Construction	Depth (Feet)	Graphic Description	DESCRIPTION	REMARKS
			129-130 - Ss, qtz, brn gy, m.-c.g. subrnd sl org g i/gran poro. thin v-beds.	
			Core #13 130-140 Rec 10'	RQD 100%
			130.0 - 131.2 Ss qtz grn buff, m to v.c.g. subang subrng grading into next unit.	
			131.2 - 140.0 Cong, lithic, pebble grn buff to lt gy albase, v. sndy go i/gran poro. subang subrnd pebs to 1" in places thin ~~bed~~ bed poorly sorted	
			Core #14 140-150 Rec 8.5'	RQD 80%
			140.0 - 142 - Ss, qtz m. gy buff, m.-v.c.g., subang subrnd, larger grns are lithic frag. occ pebb. thin bedded g i/gran poro	
			142.0 - 147.6 Ss qtz lt buff gy to lt gy, f-m.g., org hd. subrnd thin v-beds v grn. along bedding planes. occ clay pebb.	
			147.6 - 150.0 Clstn, dk grn waxy blky, sl. sndy	Brushy Basin 147.6
			Core #15 150-160 Rec 10 ft	RQD = 92%
			150. -160 Clstn, dk grn waxy blocky, sndy to v sndy in pt. occ rd. oxidation patch in one	
			Core #16 - 160-163 Rec 4'	RQD =
			160-165 Clstn, dk grn waxy blky >> Ss. qtz dk grn v org f.g., subrnd. Numerous [illegible] filled with gypsum? 1/8-1/16".	

TABLE 1
HYDRAULIC CONDUCTIVITY MEASUREMENTS

Well No.	Interval (down hole depth in feet)	Type of Test	Formation	Horizontal Hydraulic Conductivity (cm/sec)
WMMW-20	86.4-89.08	Slug	Burro Canyon	5.29E-06
	110.5-114.5	Constant Head	Brushy Basin	2.1E-07
WMMW-21	109.5-117.0	Constant Head	Brushy Basin	8.10E-06
WMMW-22	76.0-120.0	Slug	Burro Canyon	2.02E-06
	130.0-134.0	Constant Head	Brushy Basin	No Take
GH-94-1	34.0-40.0	Constant Head	Dakota	5.9E-06
	40.0-50.0	Constant Head	Dakota	4.5E-05
	70.0-80.0	Constant Head	Burro Canyon	6.3E-05
	92.0-100	Constant Head	Burro Canyon	5.1E-04
	103.0-110.0	Constant Head	Burro Canyon	6.3E-04
	130.0-140.0	Constant Head	Brushy Basin	1.4E-04
	163.0-165.0	Constant Head	Brushy Basin	No Take
GH-94-2A	34.0-40.0	Constant Head	Dakota	2.5E-05
	32.5-40.0	Constant Head	Dakota	7.2E-04[1] no good
	50.0-56.0	Constant Head	Dakota	8.8E-05
	60.0-70.0	Constant Head	Burro Canyon	4.0E-05
	70.0-80.0	Constant Head	Burro Canyon	1.6E-04
	80.0-90.0	Constant Head	Burro Canyon	1.2E-04
	138.0-144.0	Constant Head	Brushy Basin	No Take
GH-94-3	155.0-161.0	Constant Head	Brushy Basin	2.7E-06[1]
	138.0-144.0	Constant Head	Brushy Basin	2.2E-06
Well No.	**Interval (down hole depth in feet)**	**Type of Test**	**Formation**	**Vertical Hydraulic Conductivity (cm/sec)**
WMMW-21	106.5-107.0	Laboratory	Brushy Basin	1.15E-10
	114.5-115.0	Laboratory	Brushy Basin	4.00E-07
WMMW-22	122.2-122.7	Laboratory	Brushy Basin	1.10E-06
	126.3-127.2	Laboratory	Brushy Basin	6.94E-10
	133.3-133.7	Laboratory	Brushy Basin	1.58E-09
	137.3-137.8	Laboratory	Brushy Basin	5.95E-04[2]

[1] Note: Packer leaking, value overestimated.
[2] Note: This value is reported to be anomalously high due to a vertical fracture present in the core sample.

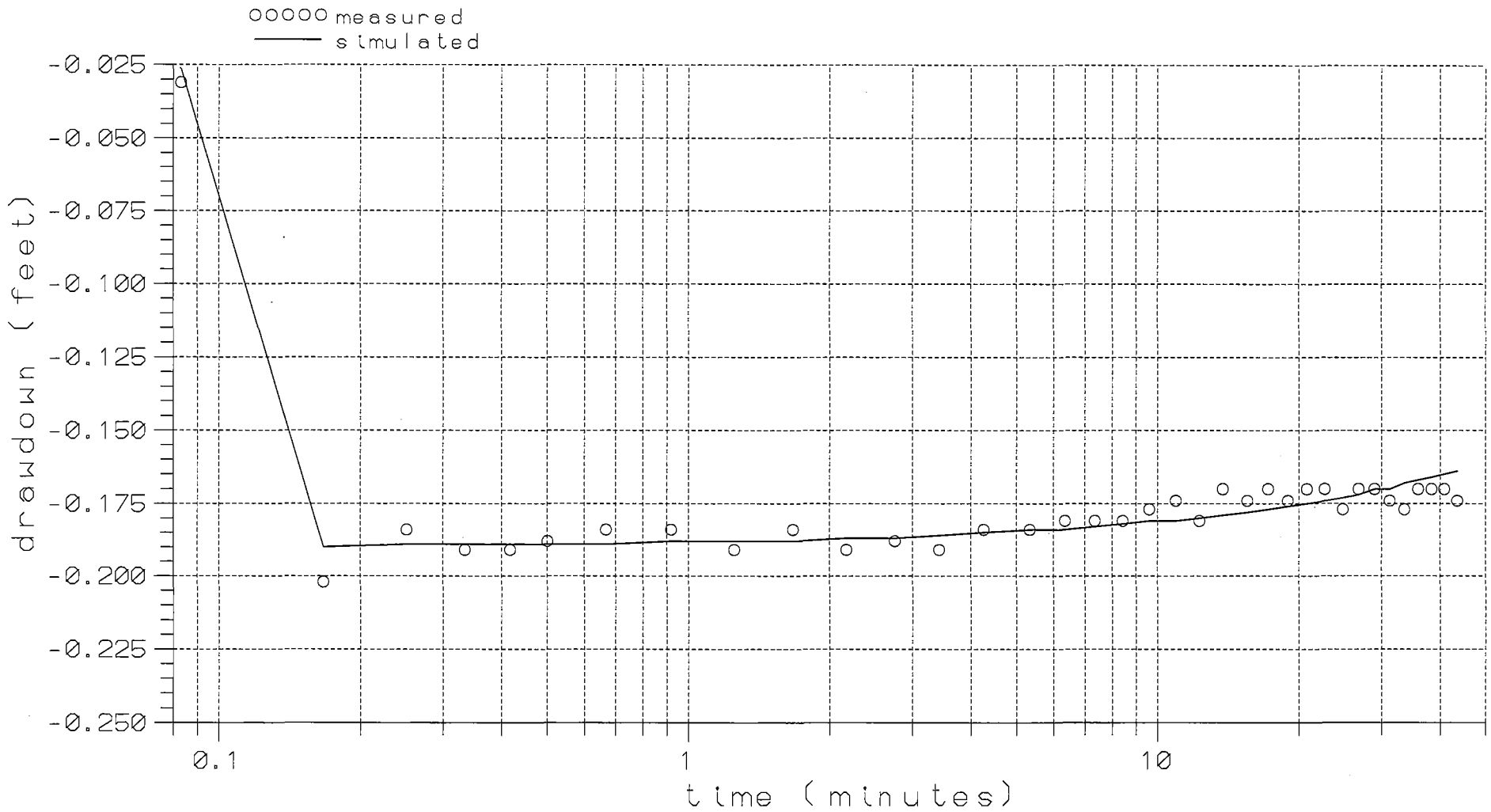


WMMW-3 Semi log Plot of Head Ratio vs Time

Aquifer Test Data For WMMW-3

Facility	Whit Mesa Mill
Monitor Well	WMMW-3
Date Pump	11/16/92

	Time(min)	Depth to Water(ft)	Drawdown(ft)	t/t'	h/ho
	0.1	83.81	0		
Well dry	7	88.99	5.18	0.01	1.00
	8	88.92	5.11	1.00	0.99
	9	88.89	5.08	1.14	0.98
	10	88.86	5.05	1.29	0.97
	11	88.85	5.04	1.43	0.97
	12	88.83	5.02	1.57	0.97
	14	88.8	4.99	1.71	0.96
	19	88.78	4.97	2.00	0.96
	24	88.68	4.87	2.71	0.94
	29	88.61	4.8	3.43	0.93
	34	88.59	4.78	4.14	0.92
	39	88.58	4.77	4.86	0.92
	49	88.57	4.76	5.57	0.92
	74	88.55	4.74	7.00	0.92
	134	88.5	4.69	10.57	0.91
	514	88.24	4.43	19.14	0.86
	1094	87.96	4.15	73.43	0.80
	2534	87.2	3.39	156.29	0.65
	3974	86.64	2.83	362.00	0.55
	5489	86.08	2.27	567.71	0.44
	6884	85.7	1.89	784.14	0.36



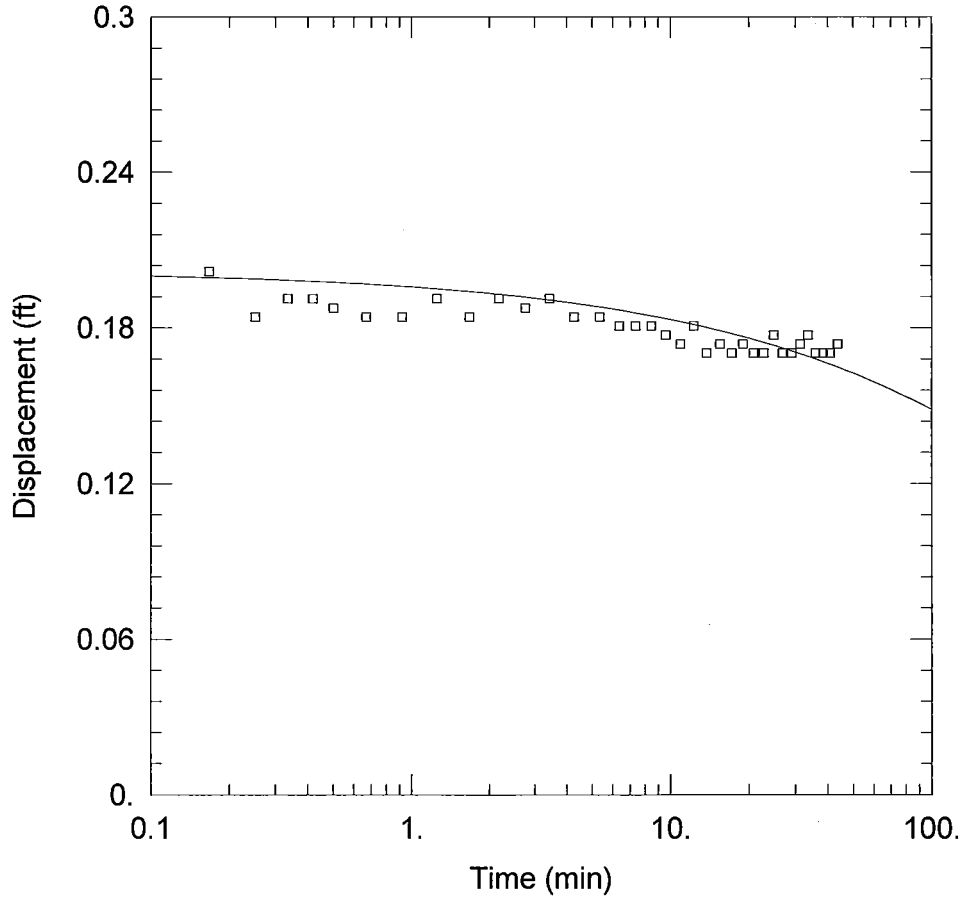
TEST RESULTS

T= 0.631 ft2/day
S= 0.01
Re=0.323 ft
K= 4.3E-5 cm/sec
(assuming b= 5.2 ft)

HYDRO GEO CHEM, INC.

MW-03 SLUG TEST RESULTS
(interpretation using WHIP)

Approved	Date	Reference	Figure
		h:/718000/hydtst02/whip	



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw03.aqt
Date: 02/12/10 Time: 12:14:01

PROJECT INFORMATION

Client: iuc
Test Well: mw03

AQUIFER DATA

Saturated Thickness: 5.2 ft

WELL DATA (mw03)

Initial Displacement: 0.202 ft
Total Well Penetration Depth: 5.2 ft
Casing Radius: 0.125 ft

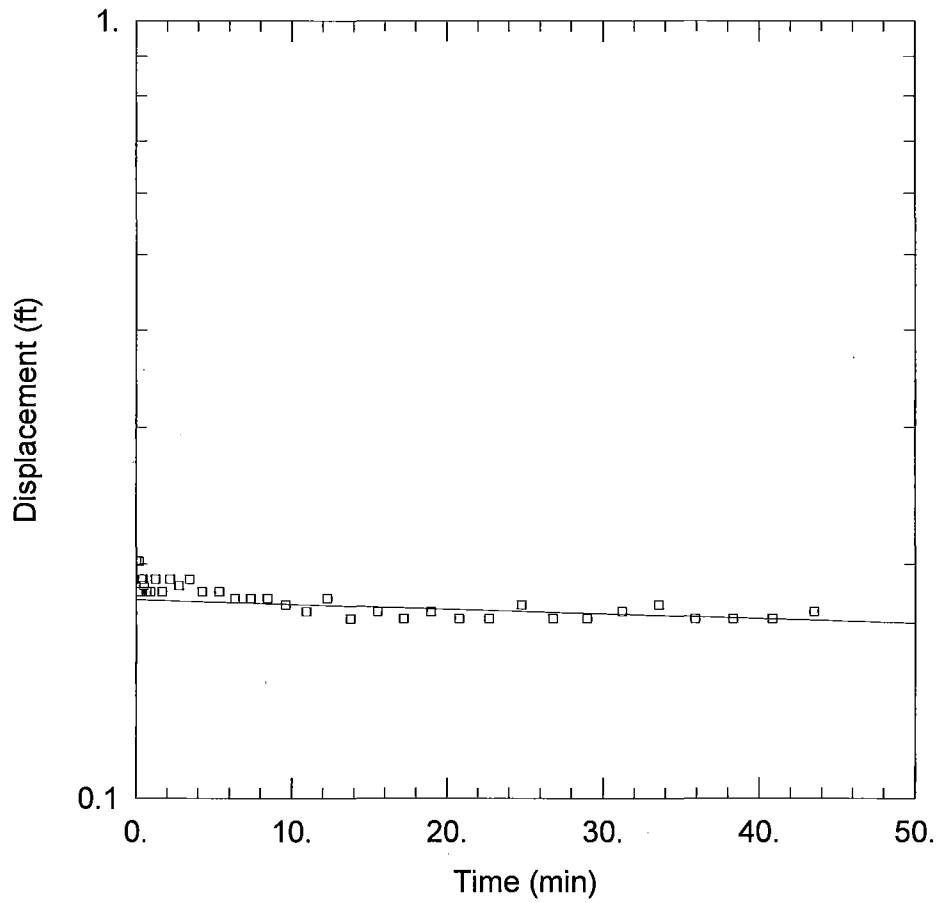
Static Water Column Height: 5.2 ft
Screen Length: 5.2 ft
Well Radius: 0.33 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 4.042E-7 cm/sec
Kz/Kr = 1.

Ss = 0.01923 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw03br.aqt
Date: 02/12/10 Time: 12:14:17

PROJECT INFORMATION

Client: iuc
Test Well: mw03

AQUIFER DATA

Saturated Thickness: 5.2 ft
Anisotropy Ratio (Kz/Kr): 1.

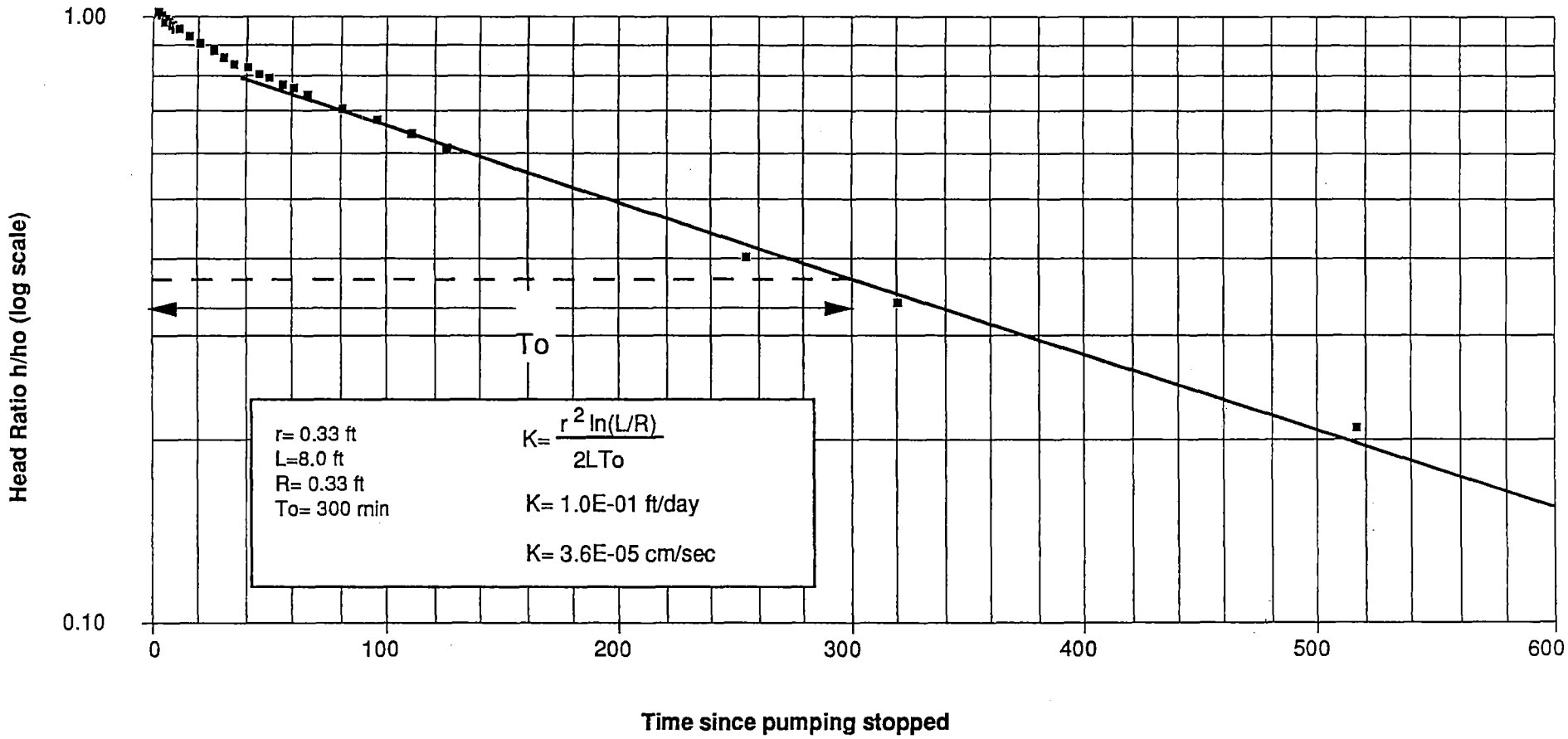
WELL DATA (mw03)

Initial Displacement: 0.202 ft
Total Well Penetration Depth: 5.2 ft
Casing Radius: 0.125 ft
Static Water Column Height: 5.2 ft
Screen Length: 5.2 ft
Well Radius: 0.33 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.478E-5 cm/sec
y0 = 0.18 ft

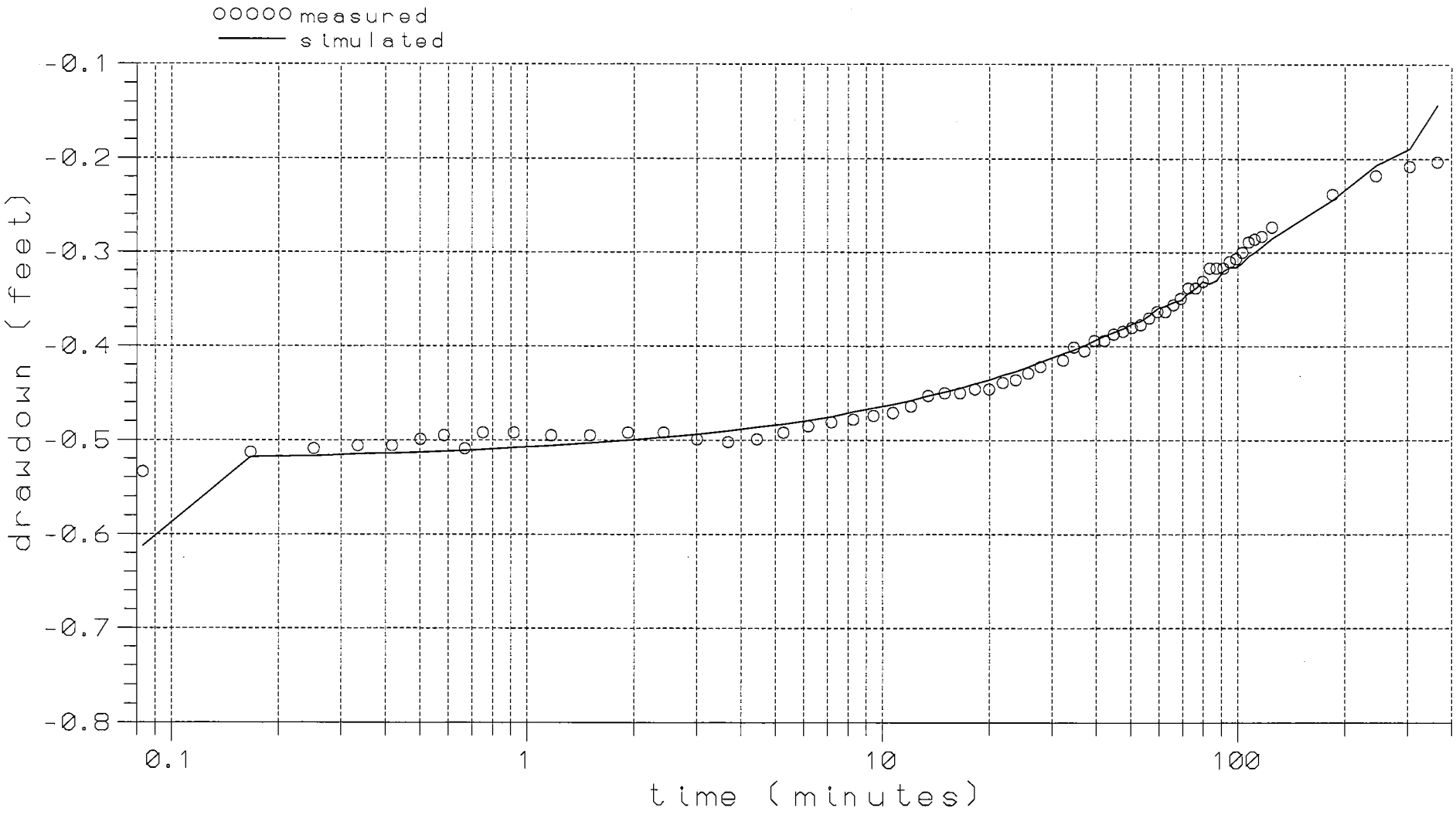


WMMW-5 Semi log Plot of Head Ratio vs Time

Aquifer Test Data For WMMW-5

Facility	Whit Mesa Mill
Monitor Well	WMMW-5
Date Pump	11/17/92

Time(min)	Depth to Water(ft)	Drawdown(ft)	t/t'	h/ho
0.1	108.39	0		
5	113.53	5.14	0.02	1.00
6	113.47	5.08	1.00	0.99
7	113.38	4.99	1.20	0.97
8	113.35	4.96	1.40	0.96
9	113.32	4.93	1.60	0.96
10	113.3	4.91	1.80	0.96
11	113.25	4.86	2.00	0.95
12	113.2	4.81	2.20	0.94
13	113.18	4.79	2.40	0.93
18	113.06	4.67	2.60	0.91
23	112.96	4.57	3.60	0.89
28	112.82	4.43	4.60	0.86
33	112.72	4.33	5.60	0.84
38	112.6	4.21	6.60	0.82
43	112.55	4.16	7.60	0.81
48	112.45	4.06	8.60	0.79
53	112.4	4.01	9.60	0.78
58	112.3	3.91	10.60	0.76
63	112.22	3.83	11.60	0.75
68	112.13	3.74	12.60	0.73
83	111.96	3.57	13.60	0.69
98	111.78	3.39	16.60	0.66
113	111.62	3.23	19.60	0.63
128	111.45	3.06	22.60	0.60
258	110.42	2.03	25.60	0.39
323	110.09	1.7	51.60	0.33
518	109.45	1.06	64.60	0.21



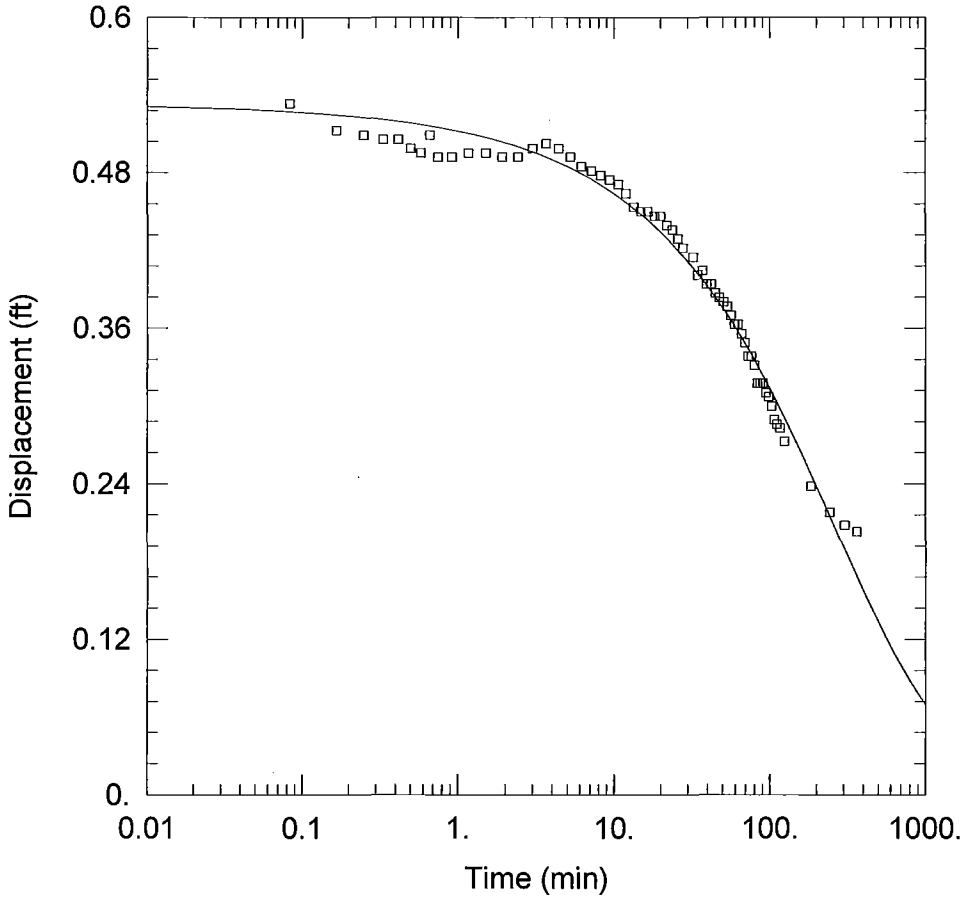
TEST RESULTS

T= 0.309 ft2/day
S= 0.100
Re=0.245 ft
K= 1.1e-5 cm/sec
(assuming b= 10 ft)

HYDRO GEO CHEM, INC.

MW-05 SLUG TEST RESULTS
(interpretation using WHIP)

Approved	Date	Reference	Figure
		h:/718000/hydtst02/whip	



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw05.aqt
Date: 02/12/10 Time: 12:15:11

PROJECT INFORMATION

Client: iuc
Test Well: mw05

AQUIFER DATA

Saturated Thickness: 10. ft

WELL DATA (mw05)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft

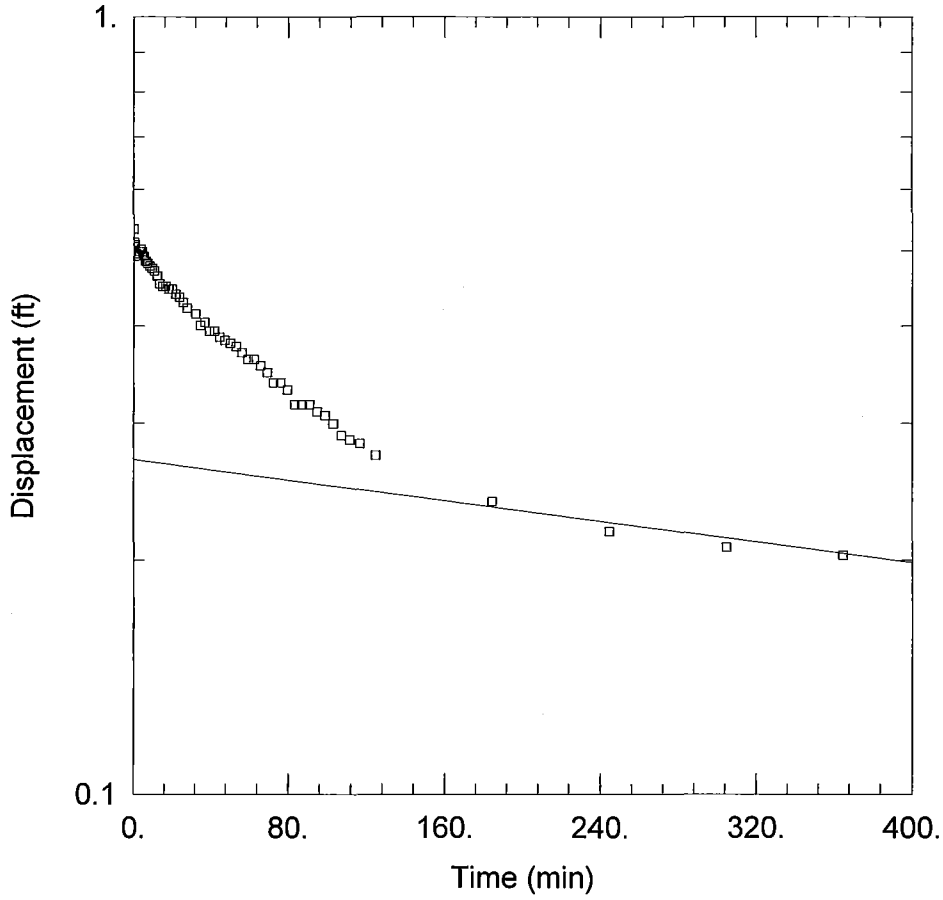
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 3.454E-6 cm/sec
Kz/Kr = 1.

Ss = 0.004419 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw05brlt.aqt
Date: 02/12/10 Time: 12:15:58

PROJECT INFORMATION

Client: iuc
Test Well: mw05

AQUIFER DATA

Saturated Thickness: 10. ft
Anisotropy Ratio (Kz/Kr): 1.

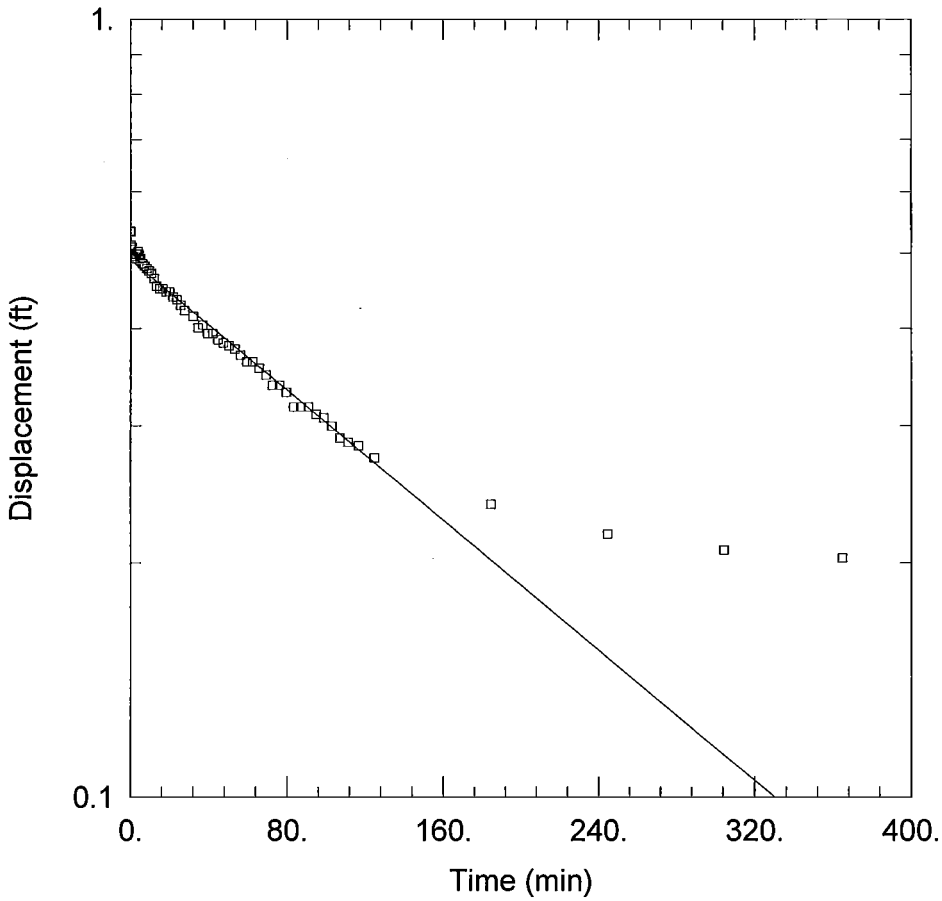
WELL DATA (mw05)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 3.857E-6 cm/sec
y0 = 0.2695 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw05bret.aqt
Date: 02/12/10 Time: 12:16:42

PROJECT INFORMATION

Client: iuc
Test Well: mw05

AQUIFER DATA

Saturated Thickness: 10. ft
Anisotropy Ratio (Kz/Kr): 1.

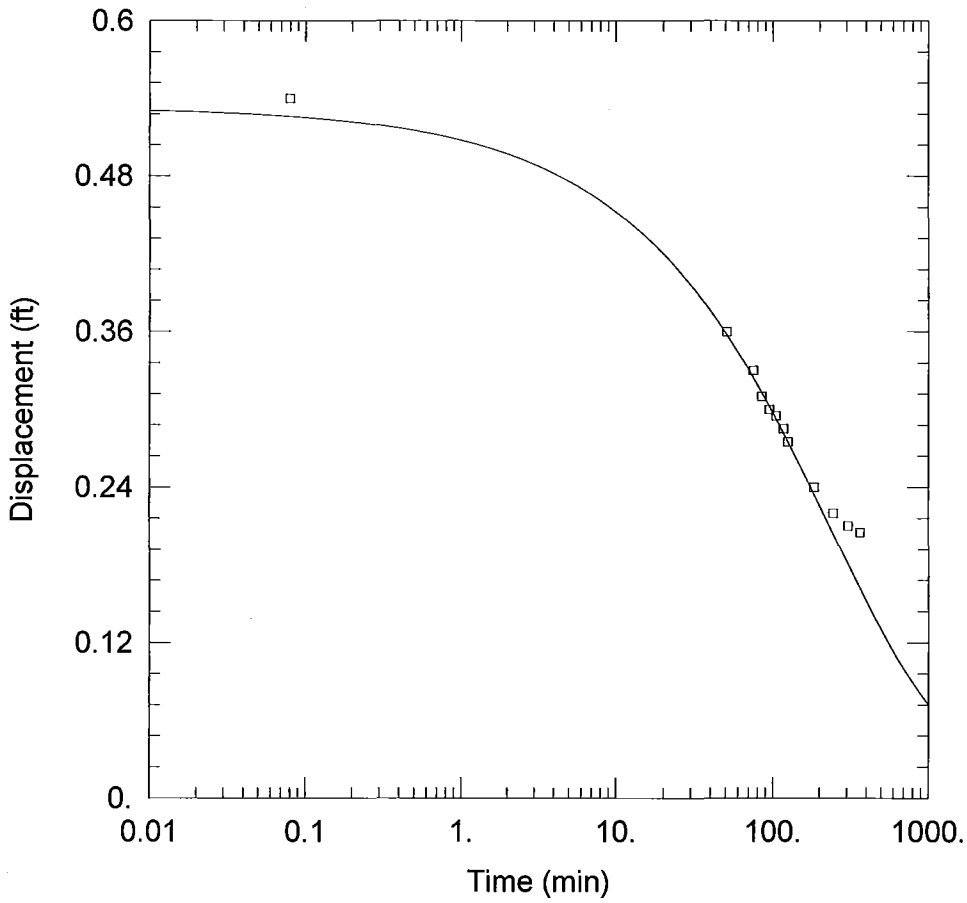
WELL DATA (mw05)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.434E-5 cm/sec
y0 = 0.4904 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesol2\mw05h.aqt
Date: 02/12/10 Time: 12:31:04

PROJECT INFORMATION

Client: iuc
Test Well: mw05h

AQUIFER DATA

Saturated Thickness: 10. ft

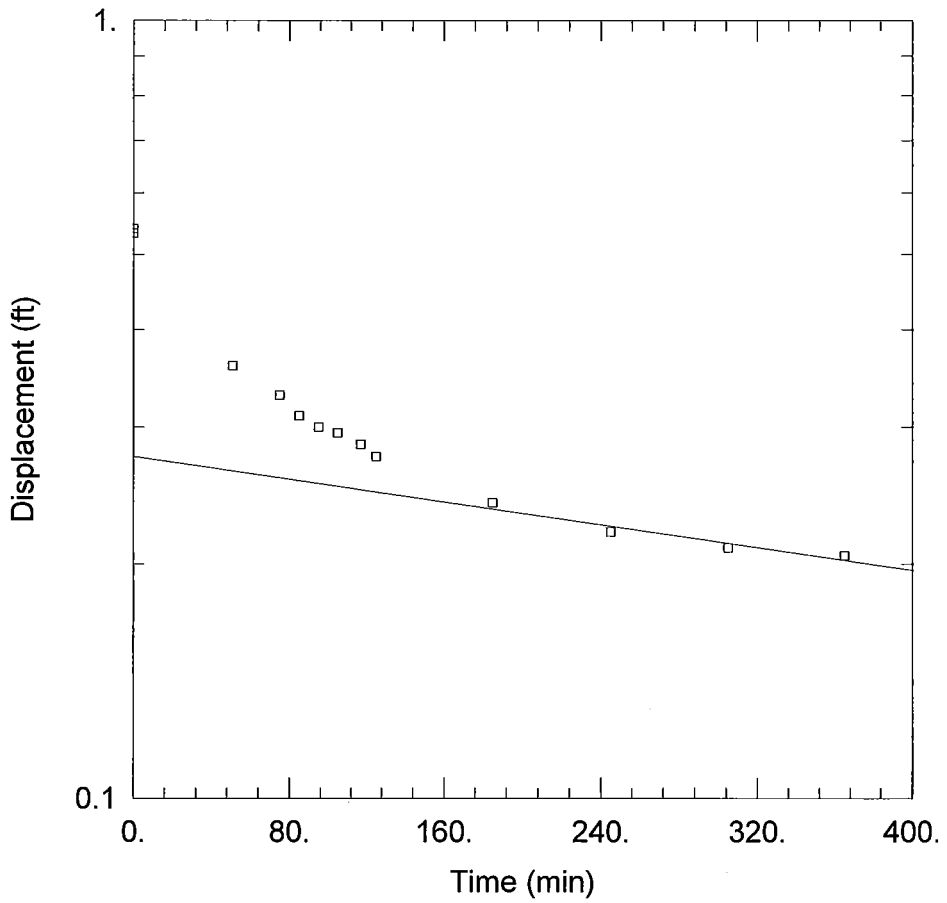
WELL DATA (mw05h)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft

SOLUTION

Aquifer Model: Confined
Solution Method: KGS Model

Kr = 3.231E-6 cm/sec
Kz/Kr = 1.
Ss = 0.007328 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesol2\mw05hbr.aqt
Date: 02/12/10 Time: 12:31:18

PROJECT INFORMATION

Client: iuc
Test Well: mw05h

AQUIFER DATA

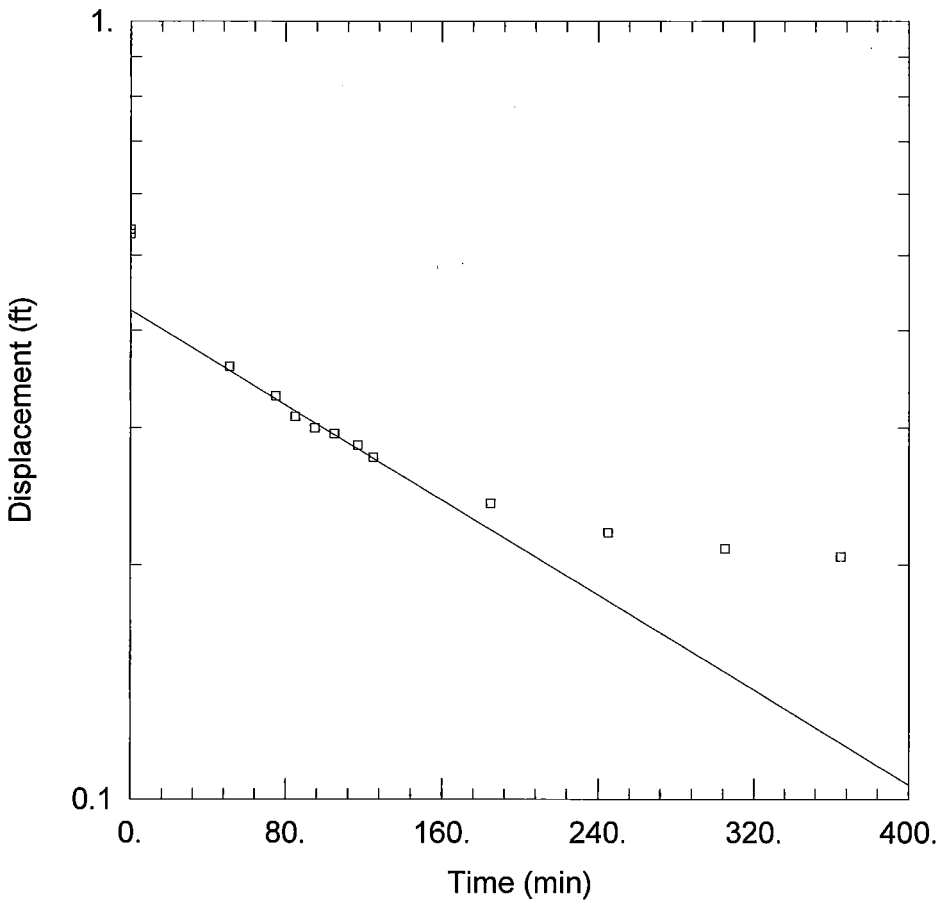
Saturated Thickness: 10. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (mw05h)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 4.26E-6 cm/sec
y0 = 0.275 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesol2\mw05hbre.aqt
Date: 02/12/10 Time: 12:31:36

PROJECT INFORMATION

Client: iuc
Test Well: mw05h

AQUIFER DATA

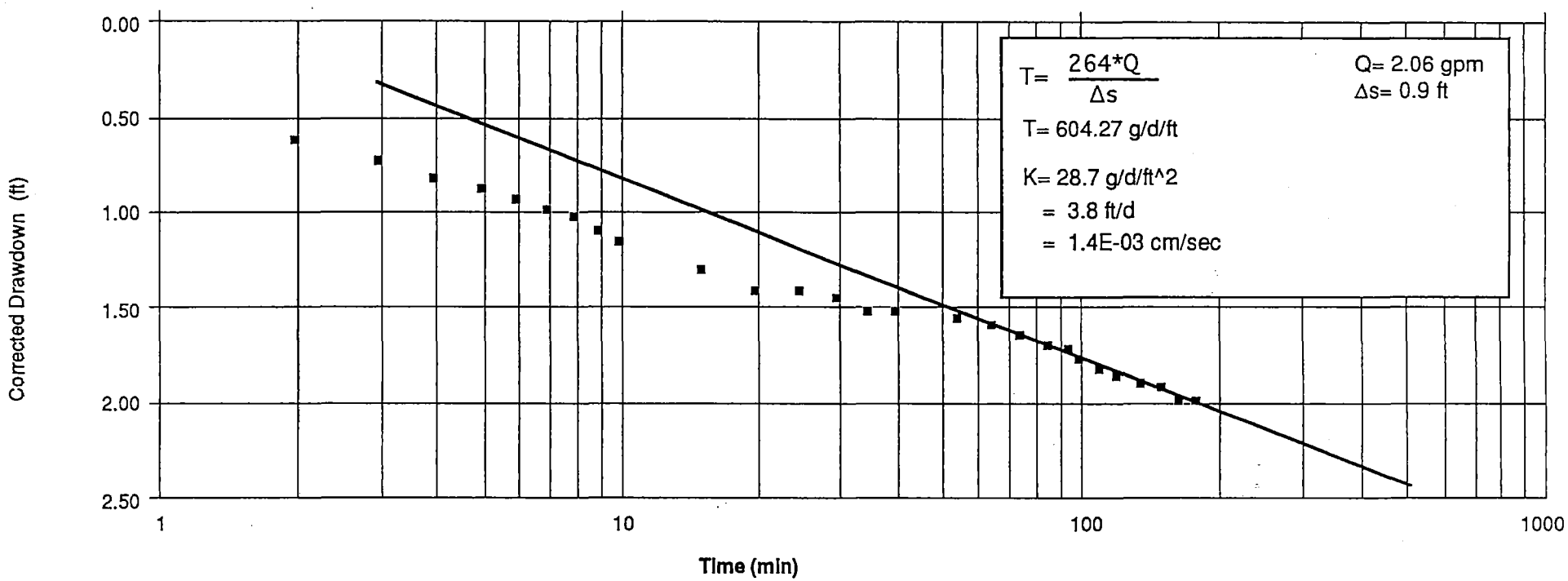
Saturated Thickness: 10. ft
Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (mw05h)

Initial Displacement: 0.533 ft
Total Well Penetration Depth: 10. ft
Casing Radius: 0.167 ft
Static Water Column Height: 10. ft
Screen Length: 10. ft
Well Radius: 0.27 ft
Gravel Pack Porosity: 0.99

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice
K = 1.776E-5 cm/sec
y0 = 0.425 ft

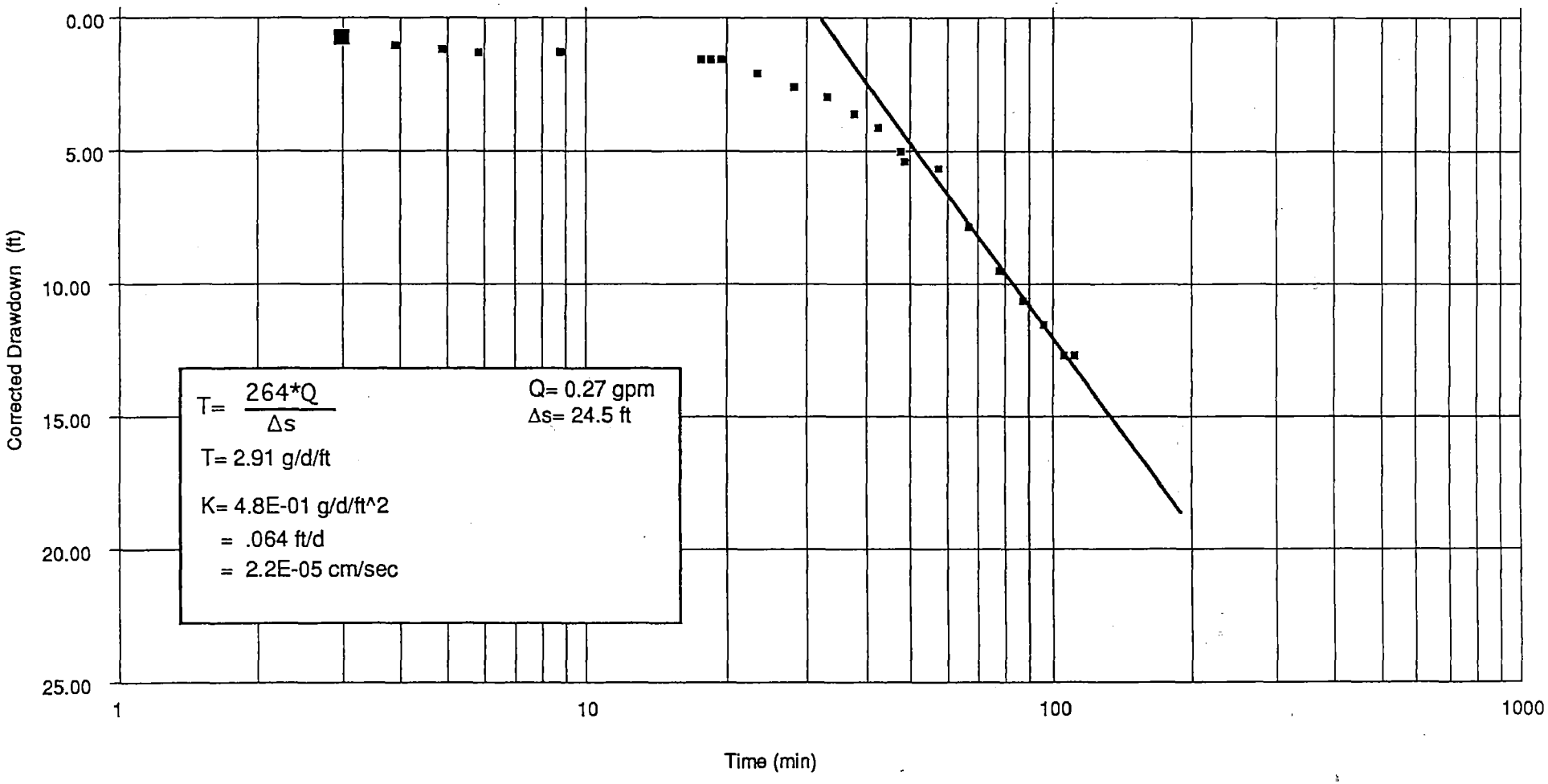


WMMW-11 Semi-Log Plot Of Time vs Drawdown (Corrected For Dewatering)

Aquifer Test Data For WMMW-11

Facility Whit Mesa Mill
Monitor Well WMMW-11
Date Pump 11/12/92

	Time (min)	Depth to Water(ft)	Drawdown(ft)	Drawdown Corrected(ft)
Pump Started	0.1	102.27	0	
	1	102.71	0.44	0.44
	2	102.92	0.65	0.64
	3	103.02	0.75	0.74
	4	103.12	0.85	0.84
	5	103.18	0.91	0.90
	6	103.24	0.97	0.95
	7	103.29	1.02	1.00
	8	103.33	1.06	1.04
	9	103.4	1.13	1.11
	10	103.47	1.2	1.17
	15	103.61	1.34	1.31
	20	103.72	1.45	1.41
	25	103.72	1.45	1.41
	30	103.76	1.49	1.45
	35	103.85	1.58	1.54
	40	103.85	1.58	1.54
	55	103.88	1.61	1.56
	65	103.93	1.66	1.61
	75	103.98	1.71	1.66
	85	104.03	1.76	1.70
	95	104.05	1.78	1.72
	100	104.12	1.85	1.79
	110	104.18	1.91	1.84
	120	104.22	1.95	1.88
	135	104.25	1.98	1.91
	150	104.27	2	1.93
	165	104.35	2.08	2.00
	180	104.35	2.08	2.00
Pump off	200	104.38	2.11	2.03
	205	104.38	2.11	2.03
	206	104.03	0.35	
	207	103.8	0.58	
	208	103.66	0.72	
	209	103.58	0.8	
	210	103.5	0.88	
	211	103.44	0.94	
	212	103.41	0.97	
	213	103.33	1.05	
	214	103.35	1.03	
	215	103.34	1.04	
	220	103.18	1.2	
	225	103.09	1.29	
	235	103.03	1.35	
	250	102.92	1.46	
	270	102.88	1.5	
	290	102.78	1.6	
	310	102.78	1.6	

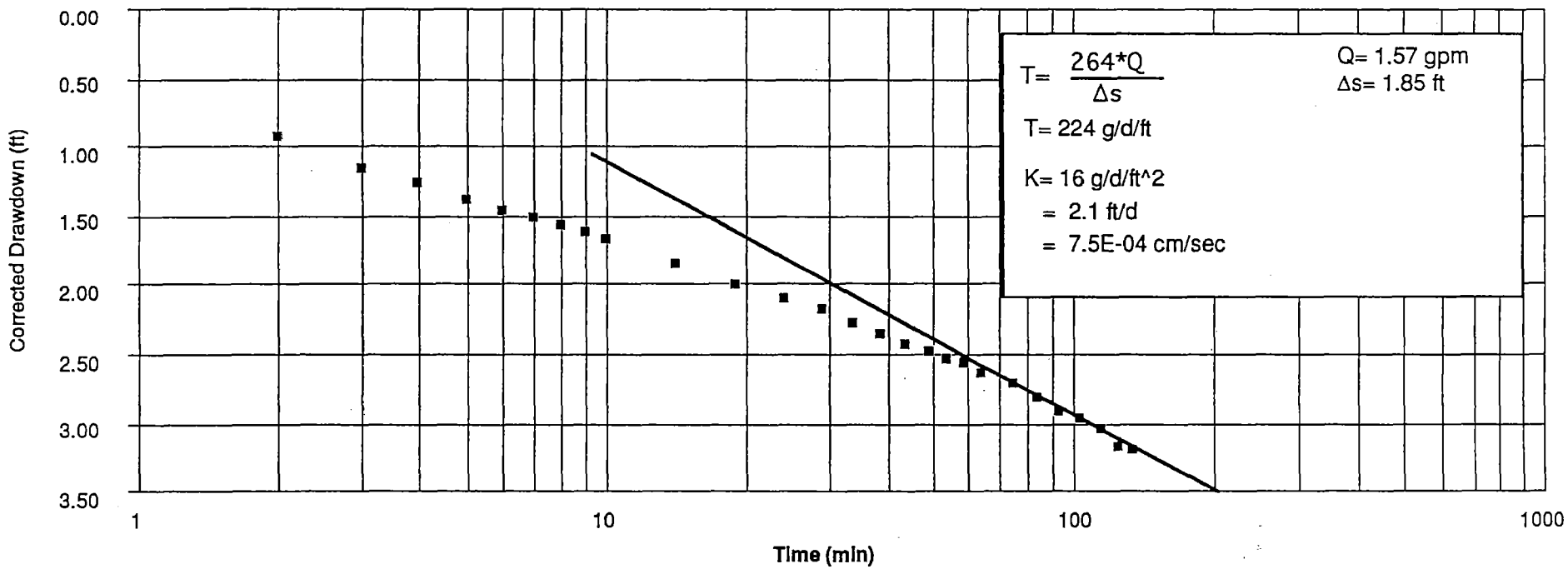


WMMW-12 Semi-Log Plot Of Time vs Drawdown (Corrected For Dewatering)

Aquifer Test Data For WMMW-12

Facility	Whit Mesa Mill
Monitor Well	WMMW-12
Date Pump	11/19/92

	Time (min)	Depth to Water(ft)	Drawdown(ft)	Drawdown Corrected(ft)
Pump Started	0.1	109.45	0	
	2	110	0.55	0.54
	3	110.24	0.79	0.78
	4	110.47	1.02	1.00
	5	110.63	1.18	1.16
	6	110.68	1.23	1.20
	9	110.79	1.34	1.31
	18	110.95	1.5	1.46
	19	111	1.55	1.51
	20	111.07	1.62	1.57
	24	111.61	2.16	2.08
	29	112.08	2.63	2.51
	34	112.6	3.15	2.97
	39	113.3	3.85	3.59
	44	113.83	4.38	4.04
	49	114.93	5.48	4.94
	50	115.52	6.07	5.41
	59	115.84	6.39	5.66
	69	118.77	9.32	7.77
	79	121.47	12.02	9.44
	89	123.64	14.19	10.59
	99	125.66	16.21	11.52
Well dry	109	128.92	19.47	12.70
	114	128.91	19.46	12.70
	115	128.83	19.38	12.67
	117	128.65	19.2	12.62
	118	128.49	19.04	12.57
	119	128.48	19.03	12.56
	120	128.44	18.99	12.55
	121	128.37	18.92	12.53
	122	128.35	18.9	12.52
	123	128.34	18.89	12.52
	124	128.29	18.84	12.50
	129	128.15	18.7	12.46
	139	128	18.55	12.41
	149	127.8	18.35	12.34
	164	127.97	18.52	12.40
	179	127.75	18.3	12.32
	209	127.35	17.9	12.18
	339	125.84	16.39	11.59
	399	125.18	15.73	11.31
	464	124.48	15.03	11.00
	1414	116.12	6.67	5.88

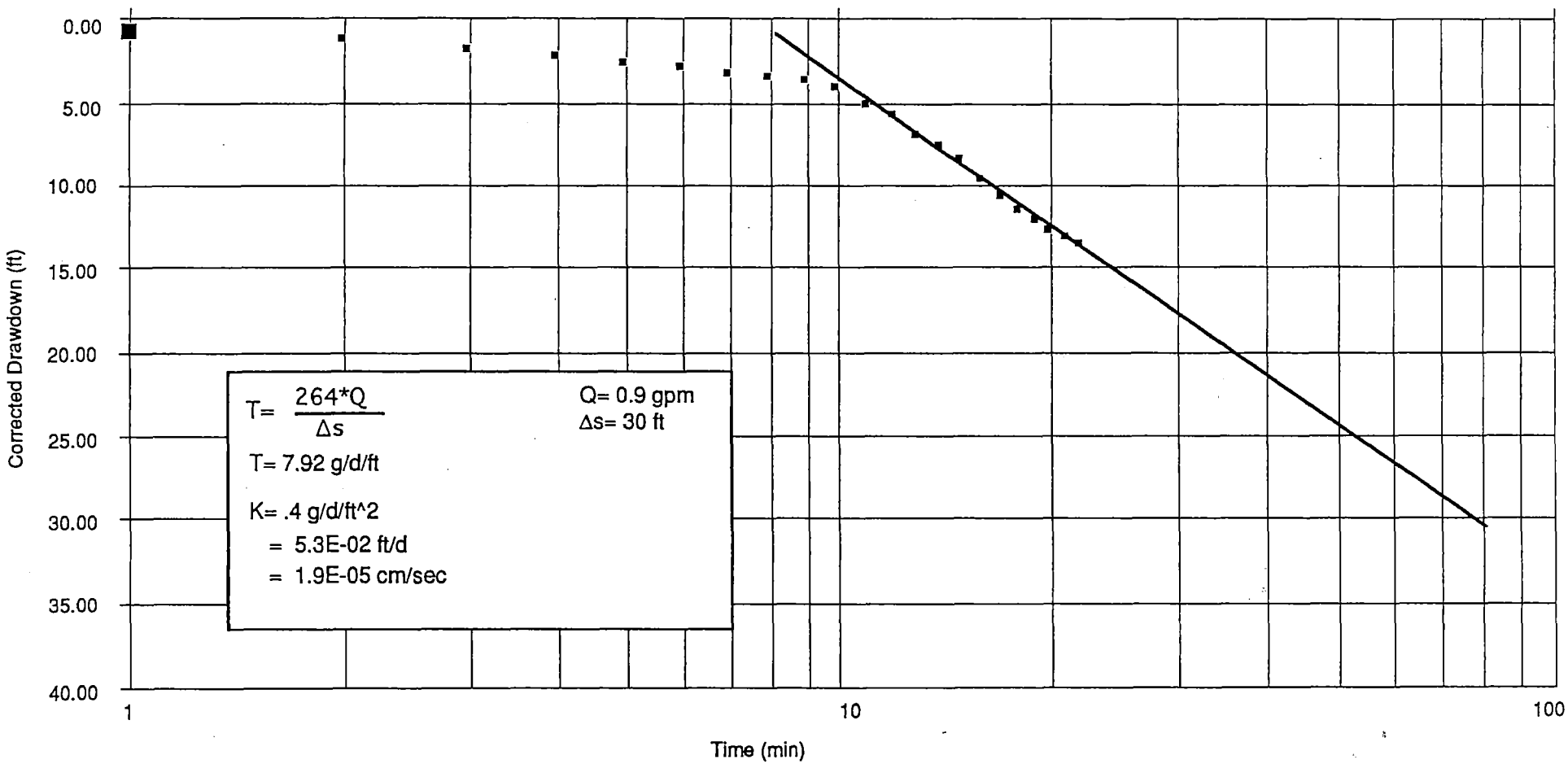


WMMW-14 Semi-Log Plot Of Time vs Drawdown (Corrected For Dewatering)

Aquifer Test Data For WMMW-14

Facility	Whit Mesa Mill
Monitor Well	WMMW-14
Date Pump	11/13/92

	Time (min)	Depth to Water (ft)	Drawdown (ft)	Drawdown Corrected (ft)
Pump Started	0.1	105.43	0	
	1	106.21	0.78	0.77
	2	106.4	0.97	0.95
	3	106.62	1.19	1.16
	4	106.74	1.31	1.28
	5	106.88	1.45	1.41
	6	106.94	1.51	1.47
	7	107.01	1.58	1.54
	8	107.07	1.64	1.59
	9	107.12	1.69	1.64
	10	107.17	1.74	1.69
	14	107.36	1.93	1.86
	19	107.51	2.08	2.00
	24	107.64	2.21	2.12
	29	107.72	2.29	2.20
	34	107.83	2.4	2.30
	39	107.91	2.48	2.37
	44	107.99	2.56	2.44
	49	108.04	2.61	2.49
	54	108.11	2.68	2.55
	59	108.13	2.7	2.57
	64	108.22	2.79	2.65
	74	108.32	2.89	2.74
	84	108.41	2.98	2.82
	94	108.53	3.1	2.93
	104	108.6	3.17	2.99
	114	108.69	3.26	3.07
	124	108.81	3.38	3.18
	134	108.85	3.42	3.21
	149	108.99	3.56	3.33
	164	109.14	3.71	3.46
	179	109.18	3.75	3.50
	194	109.28	3.85	3.59
	211	109.39	3.96	3.68
Pump Shut Down	224	109.53	4.1	3.80
	226	109.48	4.05	
	227	108.86	3.43	
	228	108.56	3.13	
	229	108.32	2.89	
	230	108.2	2.77	
	231	108.08	2.65	
	232	108	2.57	
	233	107.91	2.48	
	234	107.84	2.41	
	239	107.67	2.24	
	244	107.5	2.07	
	254	107.33	1.9	
	269	107.15	1.72	
	284	107.02	1.59	
	299	106.96	1.53	
	314	106.92	1.49	
	329	106.86	1.43	

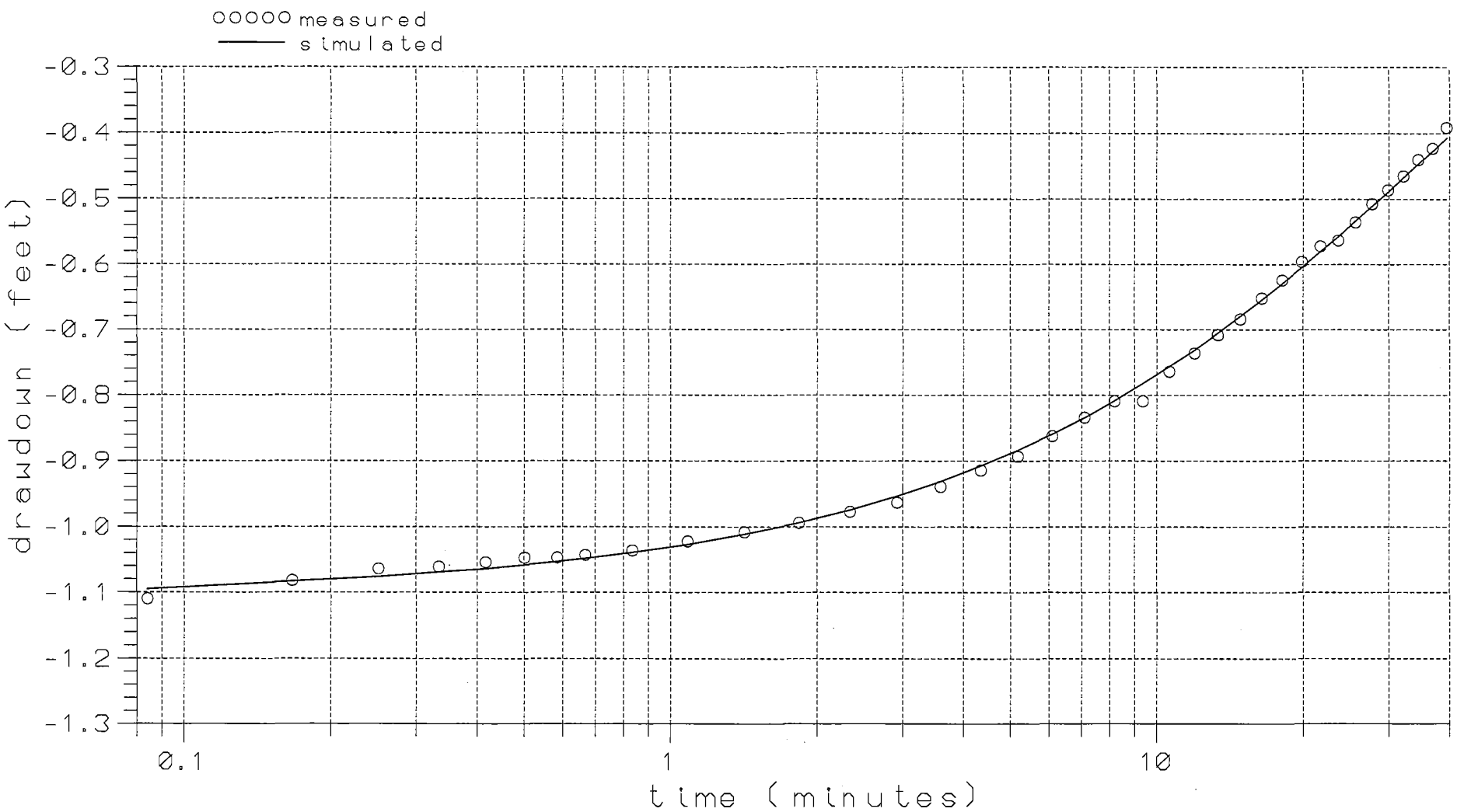


WMMW-15 Semi-Log Plot Of Time vs Drawdown (Corrected For Dewatering)

Aquifer Test Data For WMMW-15

Facility	Whit Mesa Mill
Monitor Well	WMMW-15
Date Pump	11/13/92

	Time (min)	Depth to Water(ft)	Drawdown(ft)	Drawdown Corrected(ft)
Pump Started	0.1	107.25	0	
	1	108	0.75	0.74
	2	108.53	1.28	1.25
	3	109.02	1.77	1.71
	4	109.53	2.28	2.19
	5	110	2.75	2.61
	6	110.35	3.1	2.93
	7	110.67	3.42	3.21
	8	111	3.75	3.50
	9	111.25	4	3.71
	10	111.55	4.3	3.97
	15	112.85	5.6	5.04
	20	113.8	6.55	5.78
	25	115.23	7.98	6.84
	30	116.37	9.12	7.63
	35	117.46	10.21	8.35
	45	119.48	12.23	9.56
	55	121.43	14.18	10.59
	65	123.28	16.03	11.44
	75	124.94	17.69	12.10
	85	126.45	19.2	12.62
	95	128.44	21.19	13.17
Out of water	108	130.2	22.95	13.54
	110	129.79	22.54	13.47
	111	129.5	22.25	13.41
	112	129.19	21.94	13.34
	113	128.91	21.66	13.28
	114	128.66	21.41	13.22
	115	128.4	21.15	13.16
	120	127.06	19.81	12.80
	125	125.66	18.41	12.36
	130	124.19	16.94	11.82
	135	123.06	15.81	11.35
	140	121.99	14.74	10.86
	146	120.21	12.96	9.96
	150	118.15	10.9	8.78
	160	116.1	8.85	7.45
	170	114.35	7.1	6.20
	180	112.83	5.58	5.02
	195	111.31	4.06	3.77
	210	110.18	2.93	2.78
	225	109.9	2.65	2.52
	320	108.41	1.16	1.14
	420	107.94	0.69	0.68



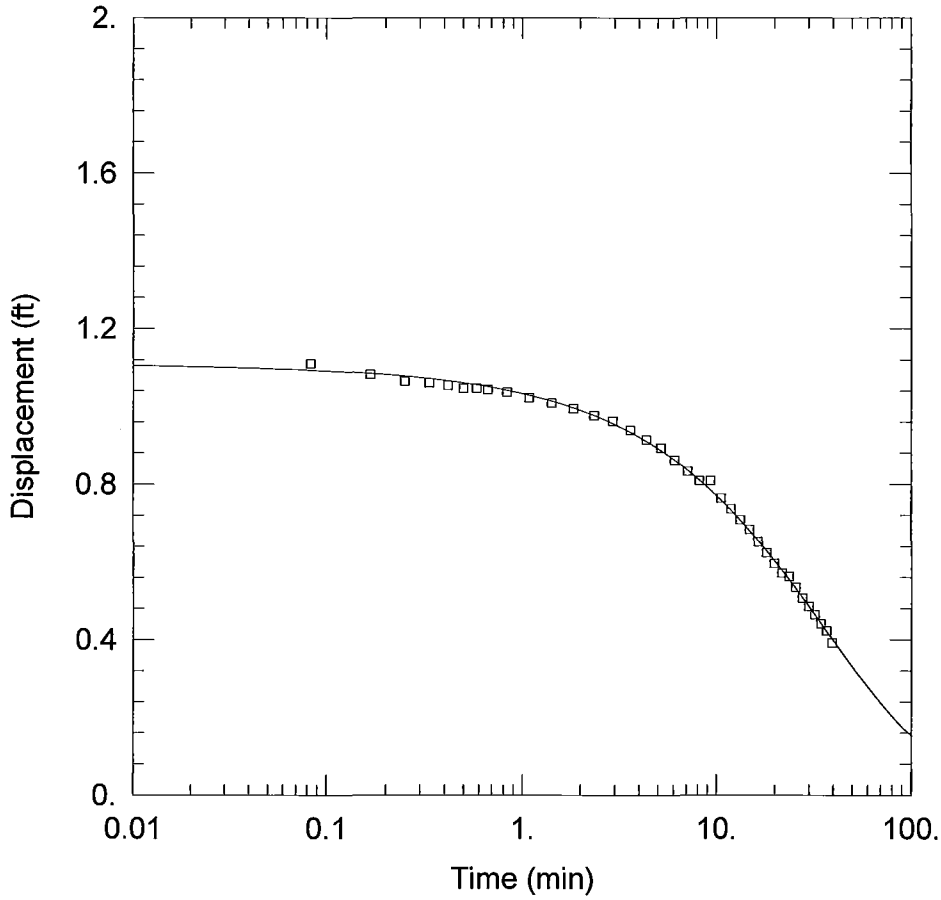
TEST RESULTS

T= 1.47 ft2/day
S= 0.01
Re= 0.168 ft
K= 2.9e-5 cm/sec
(assuming b= 18 ft)

HYDRO GEO CHEM, INC.

MW-17 SLUG TEST RESULTS
(interpretation using WHIP)

Approved	Date	Reference	Figure
		h:/718000/hydtst02/whip	



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw17.aqt
Date: 02/12/10 Time: 12:30:25

PROJECT INFORMATION

Client: iuc
Test Well: mw17

AQUIFER DATA

Saturated Thickness: 18. ft

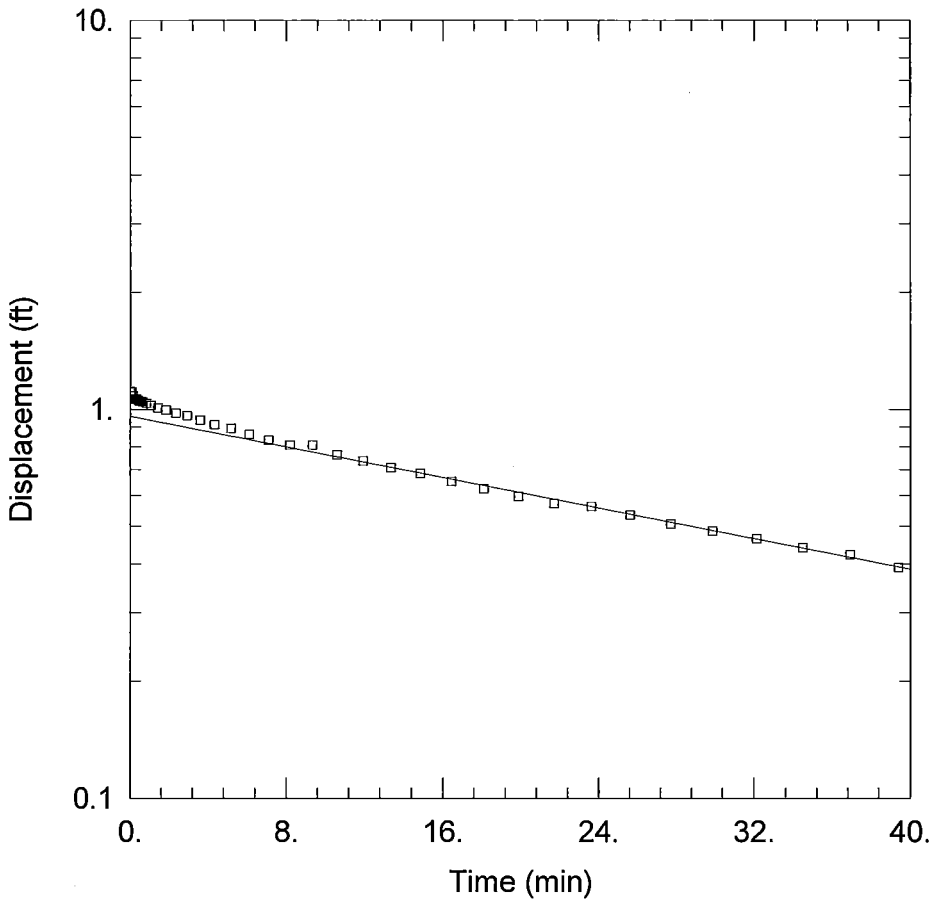
WELL DATA (mw17)

Initial Displacement: 1.11 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.328 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 2.563E-5 cm/sec
Kz/Kr = 1.
Ss = 0.0001706 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesolv\mw17br.aqt
Date: 02/12/10 Time: 12:30:41

PROJECT INFORMATION

Client: iuc
Test Well: mw17

AQUIFER DATA

Saturated Thickness: 18. ft Anisotropy Ratio (Kz/Kr): 1.

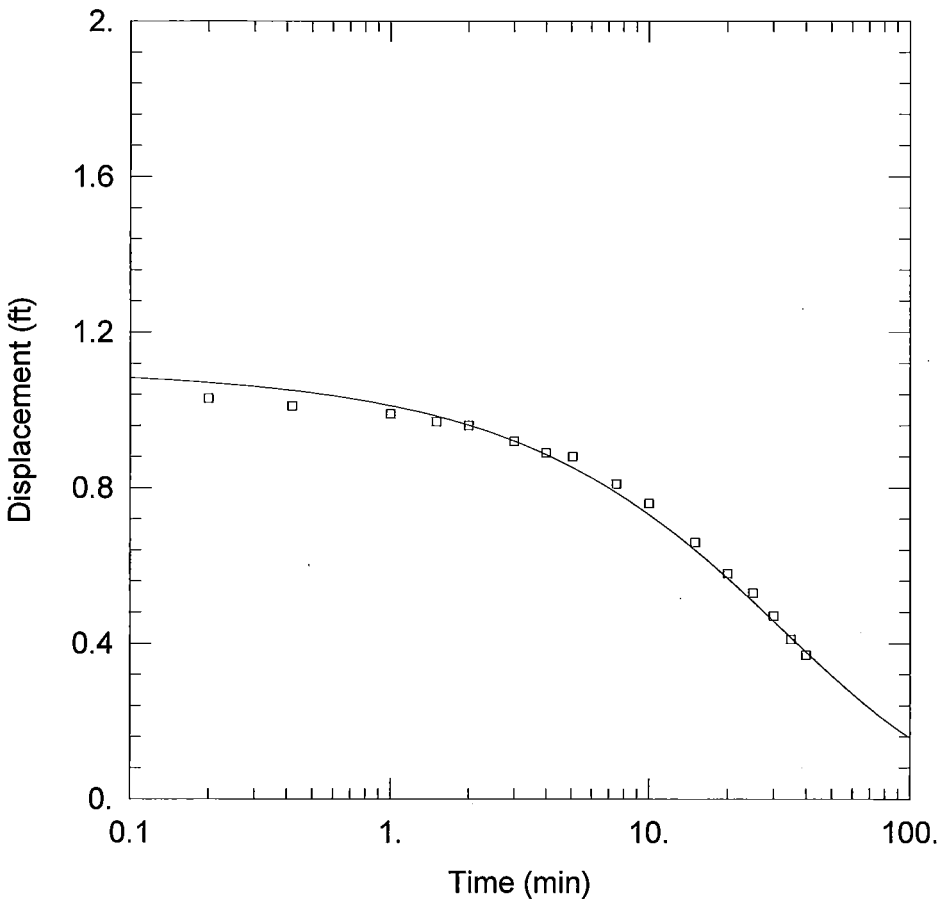
WELL DATA (mw17)

Initial Displacement: 1.11 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.328 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.731E-5 cm/sec
y0 = 0.959 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesol2\mw17h.aqt
Date: 02/12/10 Time: 12:32:09

PROJECT INFORMATION

Client: iuc
Test Well: mw17h

AQUIFER DATA

Saturated Thickness: 18. ft

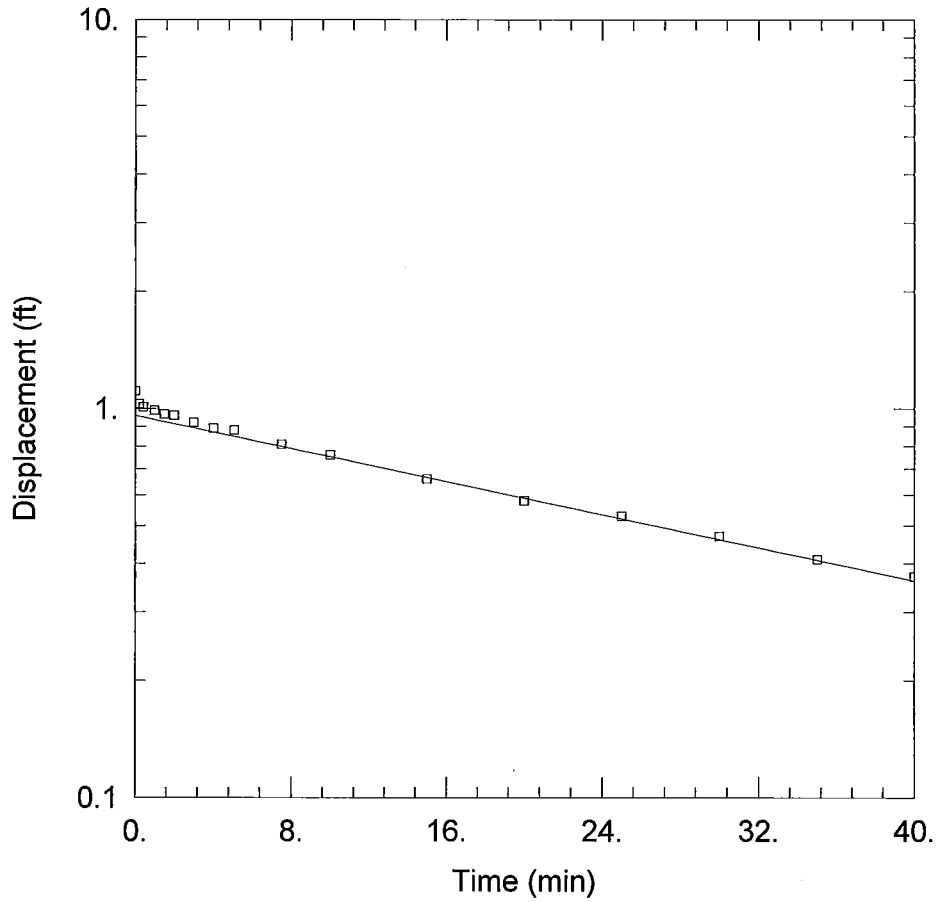
WELL DATA (mw17h)

Initial Displacement: 1.11 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.328 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 2.242E-5 cm/sec
Kz/Kr = 1.
Ss = 0.0004757 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst02\aqtesol2\mw17hbr.aqt
Date: 02/12/10 Time: 12:32:22

PROJECT INFORMATION

Client: iuc
Test Well: mw17h

AQUIFER DATA

Saturated Thickness: 18. ft Anisotropy Ratio (Kz/Kr): 1.

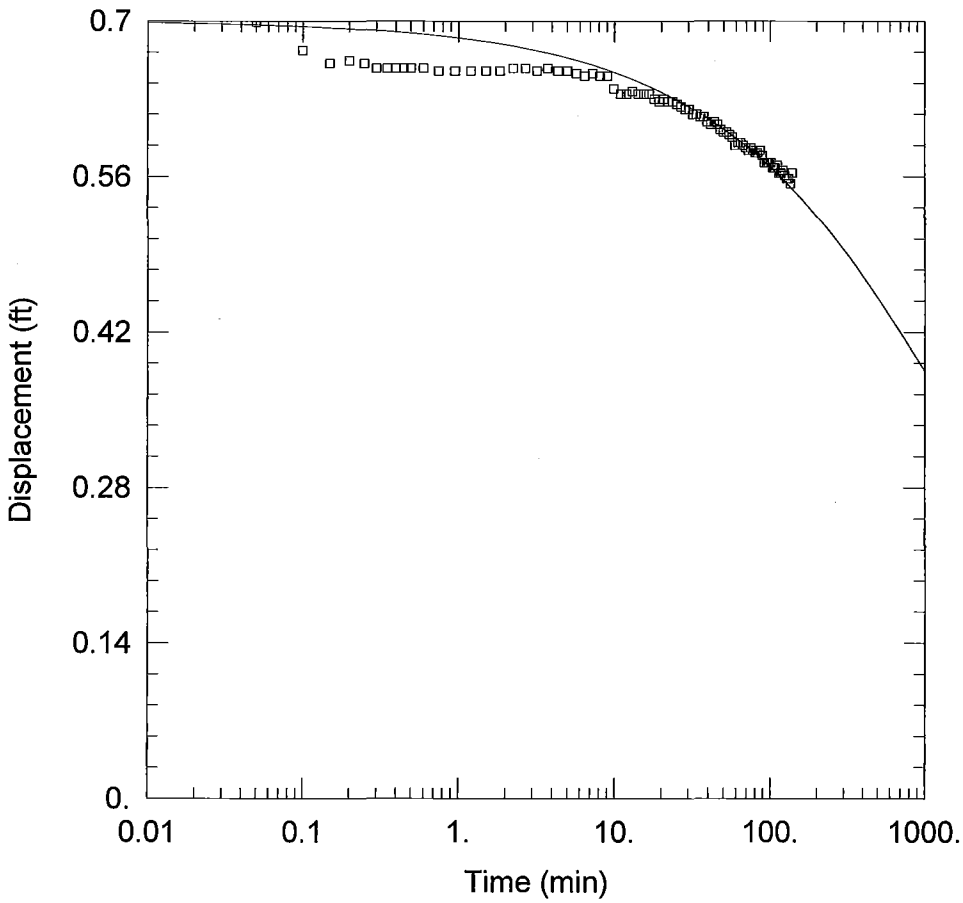
WELL DATA (mw17h)

Initial Displacement: 1.11 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.328 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.955E-5 cm/sec
y0 = 0.96 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw23\mw23.aqt
Date: 02/12/10 Time: 12:36:49

PROJECT INFORMATION

Client: iuc
Test Well: mw23

AQUIFER DATA

Saturated Thickness: 12. ft

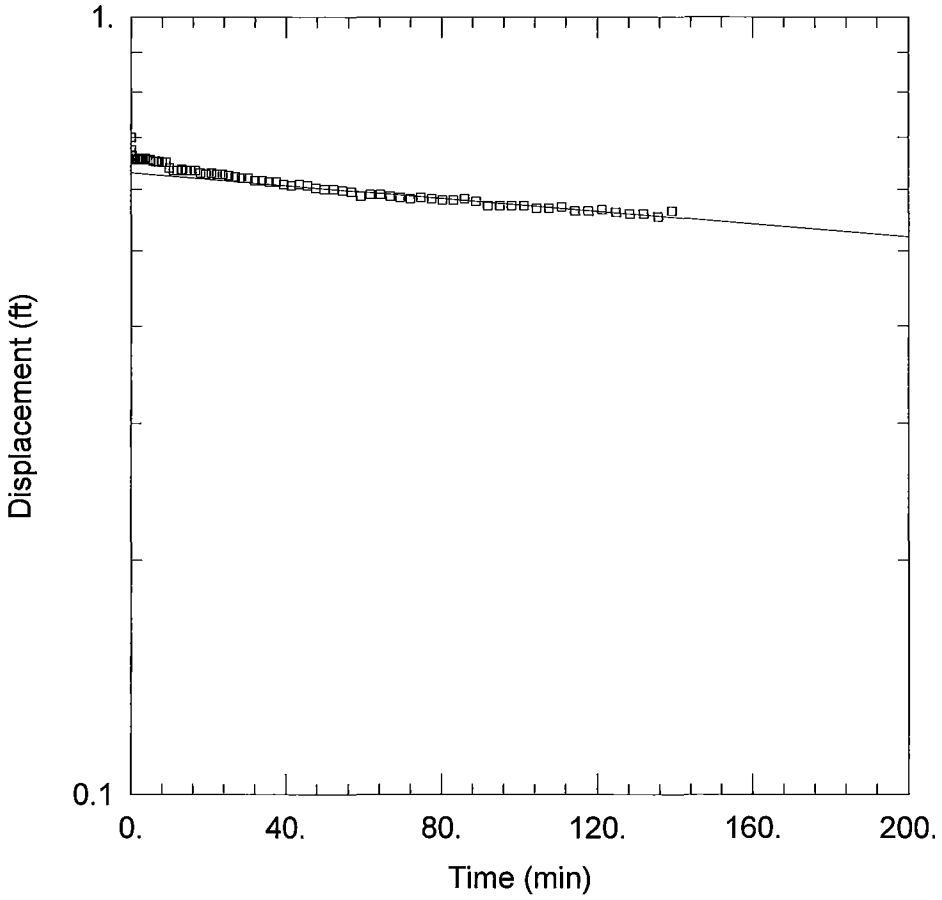
WELL DATA (mw23)

Initial Displacement: 0.7 ft
Total Well Penetration Depth: 12. ft
Casing Radius: 0.167 ft
Static Water Column Height: 12. ft
Screen Length: 12. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 3.236E-8 cm/sec
Kz/Kr = 1.
Ss = 0.1 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw23\mw23br.aqt
Date: 02/12/10 Time: 12:37:21

PROJECT INFORMATION

Client: iuc
Test Well: mw23

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

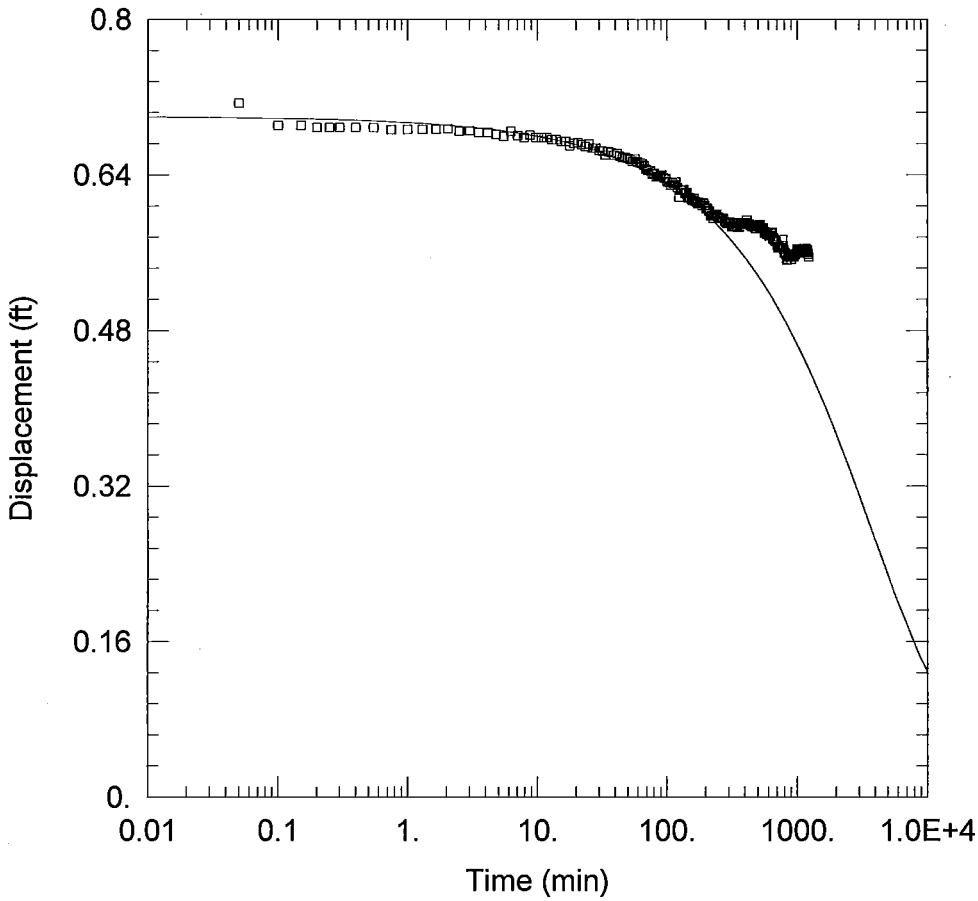
WELL DATA (mw23)

Initial Displacement: 0.7 ft
Total Well Penetration Depth: 12. ft
Casing Radius: 0.167 ft
Static Water Column Height: 12. ft
Screen Length: 12. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.605E-6 cm/sec
y0 = 0.63 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw23b\mw23b.aqt
Date: 02/12/10 Time: 12:37:41

PROJECT INFORMATION

Client: iuc
Test Well: mw23b

AQUIFER DATA

Saturated Thickness: 12. ft

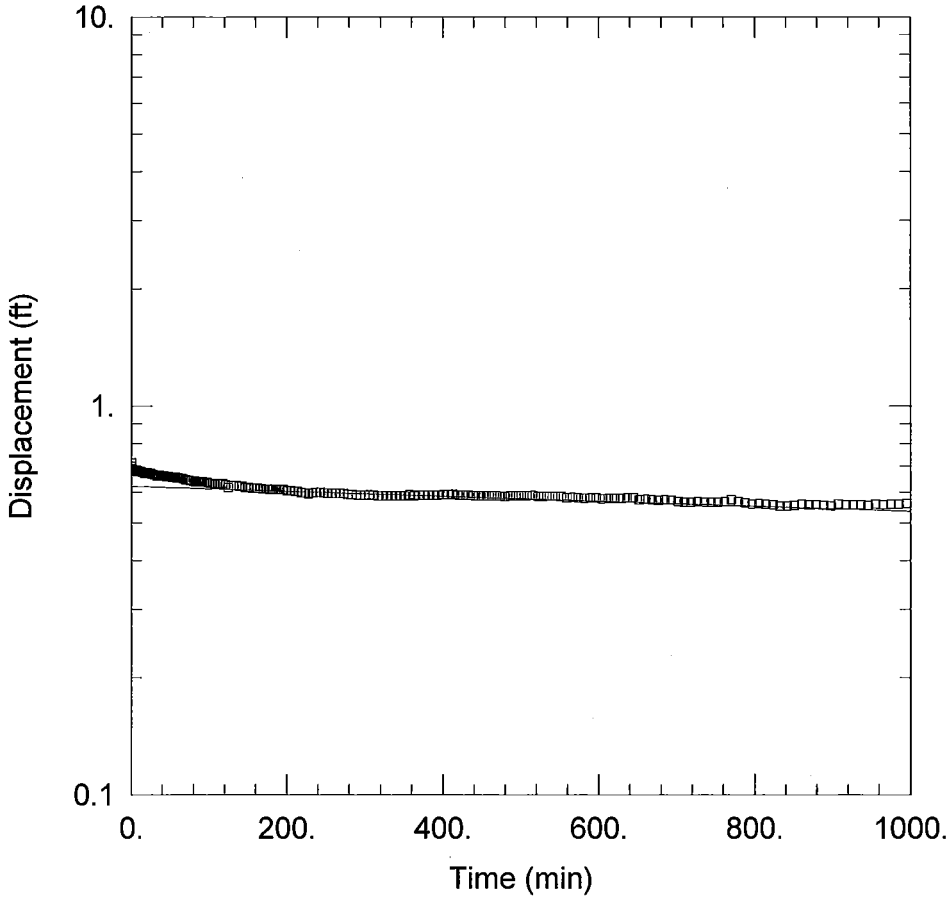
WELL DATA (mw23b)

Initial Displacement: 0.7 ft
Total Well Penetration Depth: 12. ft
Casing Radius: 0.167 ft
Static Water Column Height: 12. ft
Screen Length: 12. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 2.256E-7 cm/sec
Kz/Kr = 1.
Ss = 0.002312 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw23b\mw23bbr.aqt
Date: 02/12/10 Time: 12:39:01

PROJECT INFORMATION

Client: iuc
Test Well: mw23b

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

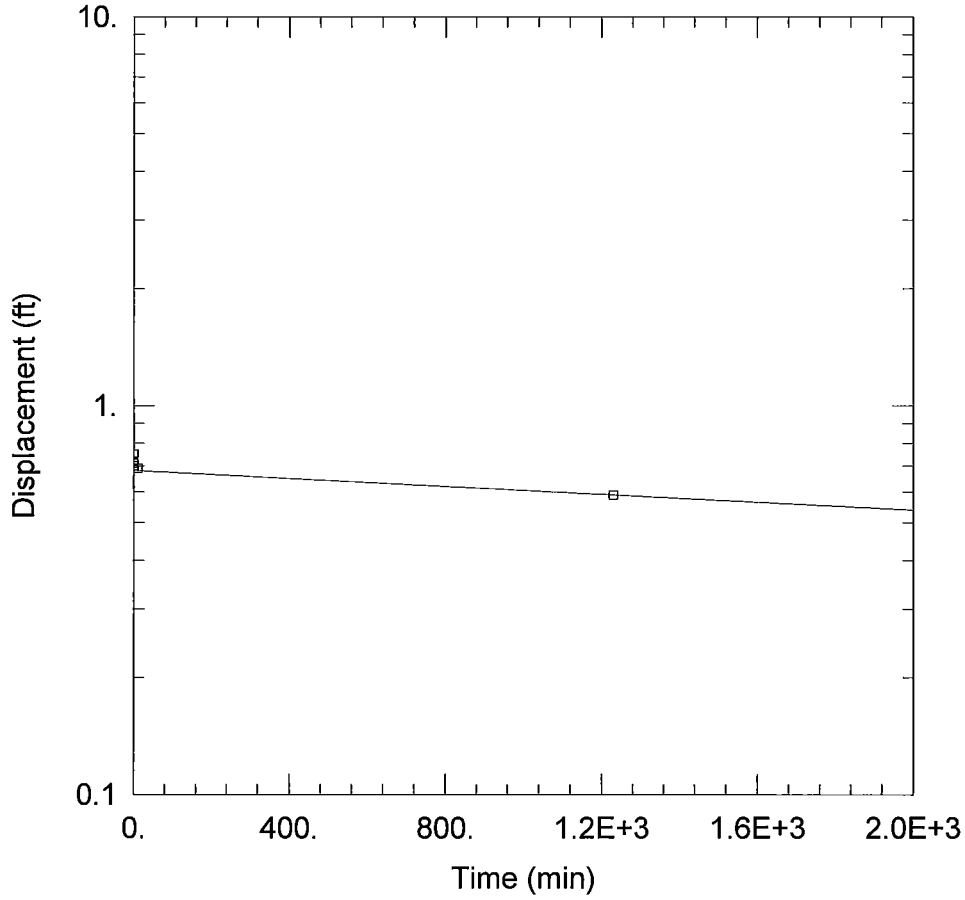
WELL DATA (mw23b)

Initial Displacement: 0.7 ft
Total Well Penetration Depth: 12. ft
Casing Radius: 0.167 ft
Static Water Column Height: 12. ft
Screen Length: 12. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 2.494E-7 cm/sec
y0 = 0.6211 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw23b\mw23bbrh.aqt
Date: 02/12/10 Time: 12:39:41

PROJECT INFORMATION

Client: iuc
Test Well: mw23bh

AQUIFER DATA

Saturated Thickness: 12. ft Anisotropy Ratio (Kz/Kr): 1.

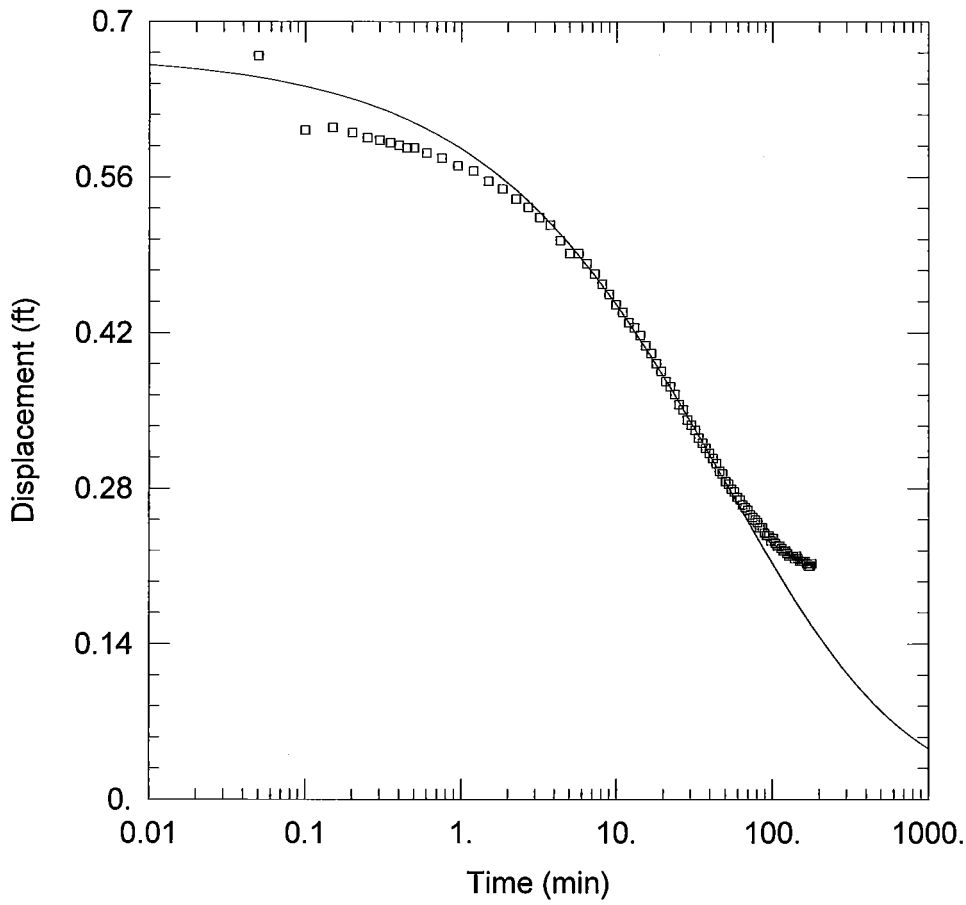
WELL DATA (mw23bh)

Initial Displacement: 0.7 ft
Total Well Penetration Depth: 12. ft
Casing Radius: 0.167 ft
Static Water Column Height: 12. ft
Screen Length: 12. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.978E-7 cm/sec
y0 = 0.681 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw28\mw28.aqt
Date: 02/12/10 Time: 12:40:54

PROJECT INFORMATION

Client: iuc
Test Well: mw28

AQUIFER DATA

Saturated Thickness: 23. ft

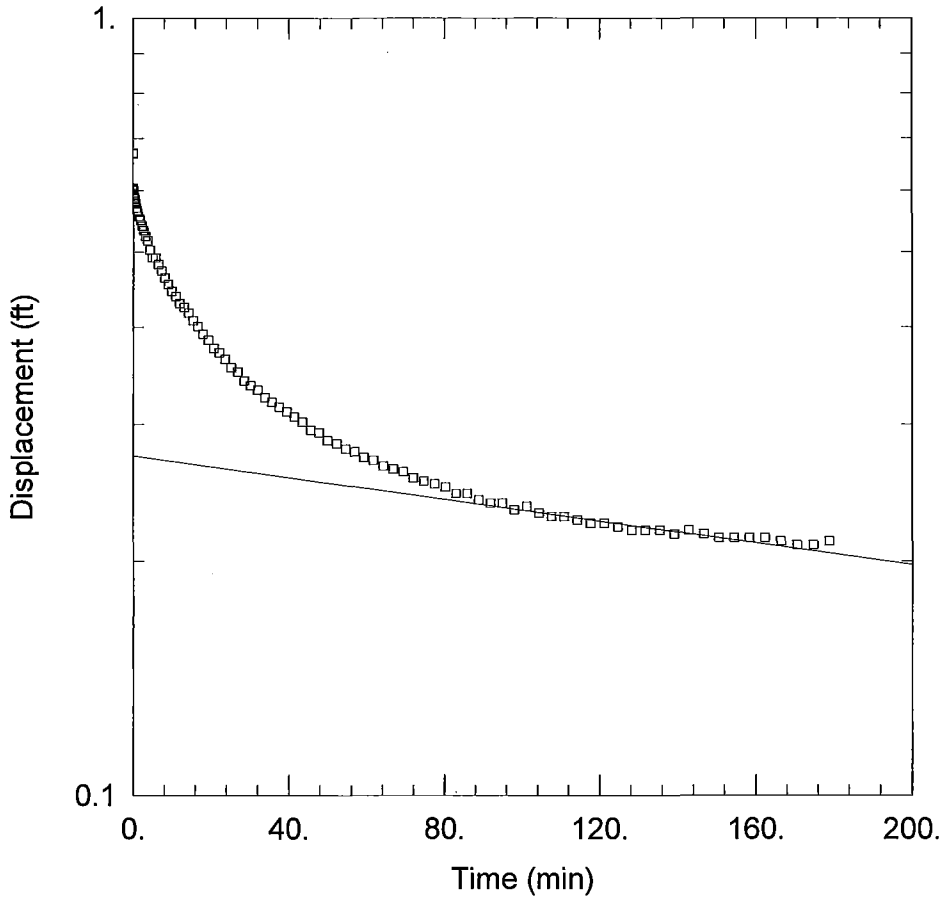
WELL DATA (mw28)

Initial Displacement: 0.67 ft
Total Well Penetration Depth: 23. ft
Casing Radius: 0.167 ft
Static Water Column Height: 23. ft
Screen Length: 23. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 1.731E-6 cm/sec
Kz/Kr = 1.
Ss = 0.02 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw28\mw28br.aqt
Date: 02/12/10 Time: 12:41:10

PROJECT INFORMATION

Client: iuc
Test Well: mw28

AQUIFER DATA

Saturated Thickness: 23. ft Anisotropy Ratio (Kz/Kr): 1.

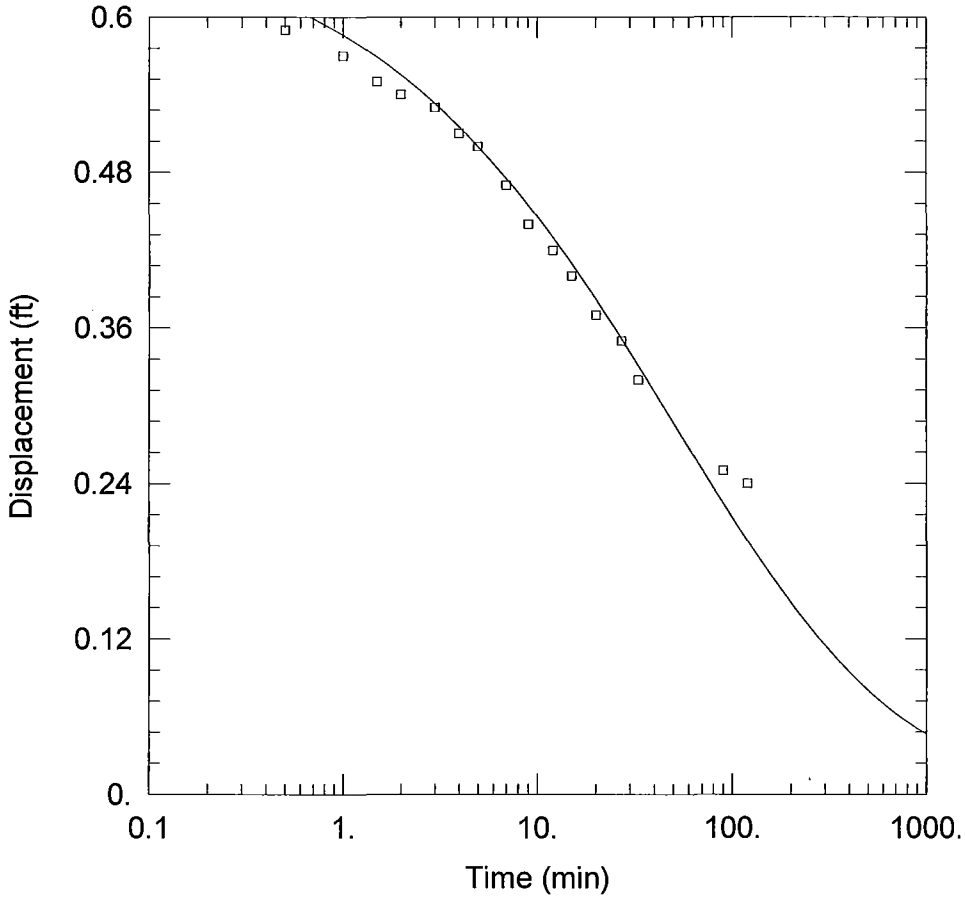
WELL DATA (mw28)

Initial Displacement: 0.67 ft
Total Well Penetration Depth: 23. ft
Casing Radius: 0.167 ft
Static Water Column Height: 23. ft
Screen Length: 23. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.681E-6 cm/sec
y0 = 0.2734 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw28\mw28h.aqt
Date: 02/12/10 Time: 12:41:36

PROJECT INFORMATION

Client: iuc
Test Well: mw28h

AQUIFER DATA

Saturated Thickness: 23. ft

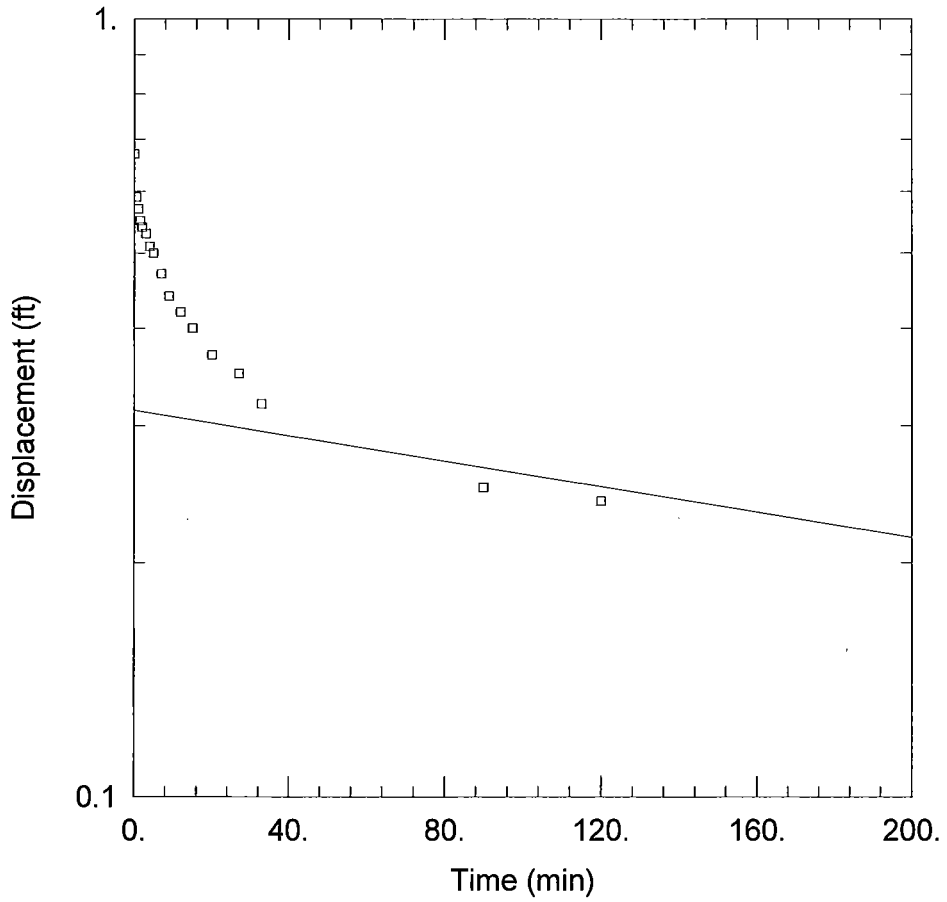
WELL DATA (mw28h)

Initial Displacement: 0.67 ft
Total Well Penetration Depth: 23. ft
Casing Radius: 0.167 ft
Static Water Column Height: 23. ft
Screen Length: 23. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 1.709E-6 cm/sec
Kz/Kr = 1.
Ss = 0.02 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw28\mw28brh.aqt
Date: 02/12/10 Time: 12:41:54

PROJECT INFORMATION

Client: iuc
Test Well: mw28h

AQUIFER DATA

Saturated Thickness: 23. ft Anisotropy Ratio (Kz/Kr): 1.

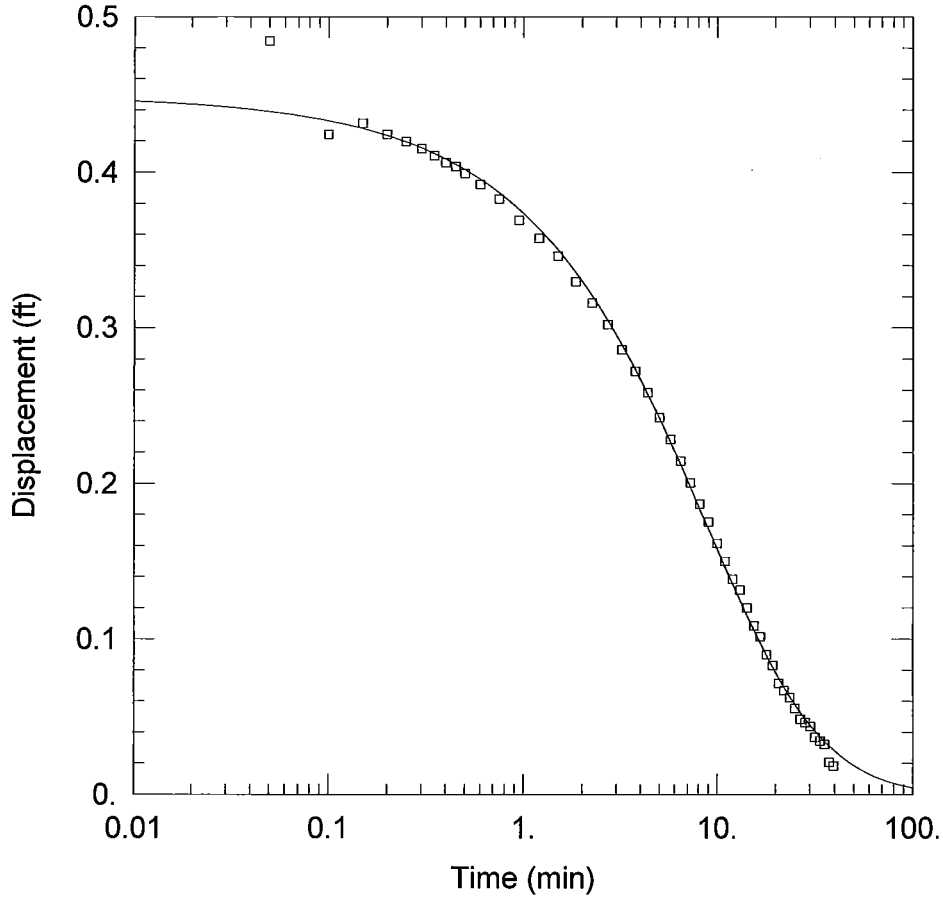
WELL DATA (mw28h)

Initial Displacement: 0.67 ft
Total Well Penetration Depth: 23. ft
Casing Radius: 0.167 ft
Static Water Column Height: 23. ft
Screen Length: 23. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 1.962E-6 cm/sec
y0 = 0.314 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw29\mw29.aqt
Date: 02/12/10 Time: 12:42:44

PROJECT INFORMATION

Client: iuc
Test Well: mw29

AQUIFER DATA

Saturated Thickness: 18. ft

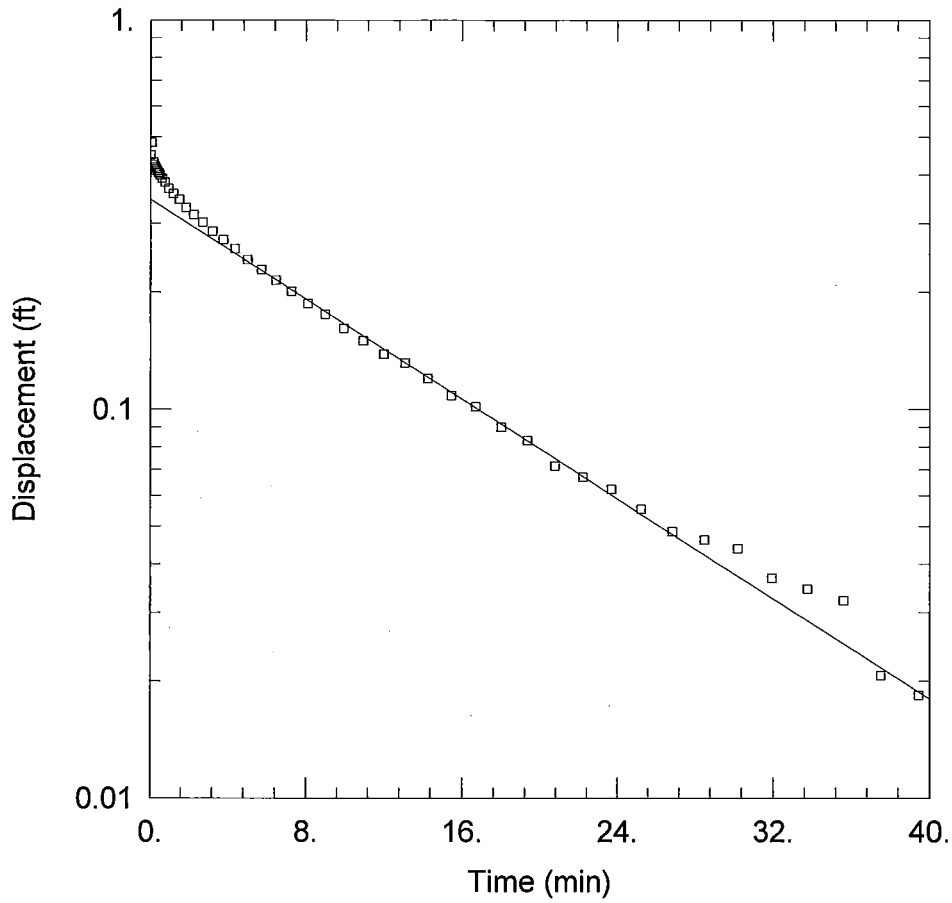
WELL DATA (mw29)

Initial Displacement: 0.45 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0001109 cm/sec
Kz/Kr = 1.
Ss = 0.0001861 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw29\mw29br.aqt
Date: 02/12/10 Time: 12:43:00

PROJECT INFORMATION

Client: iuc
Test Well: mw29

AQUIFER DATA

Saturated Thickness: 18. ft Anisotropy Ratio (Kz/Kr): 1.

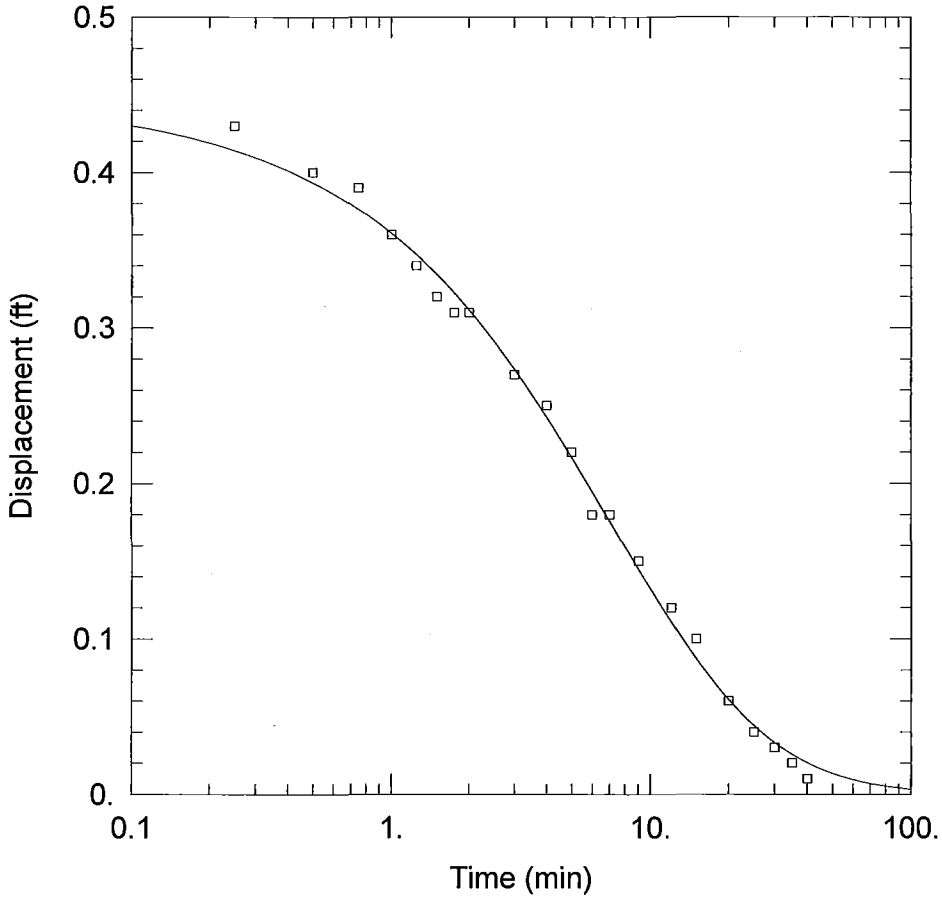
WELL DATA (mw29)

Initial Displacement: 0.45 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 9.283E-5 cm/sec
y0 = 0.3464 ft



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw29\mw29h.aqt
Date: 02/12/10 Time: 12:43:16

PROJECT INFORMATION

Client: iuc
Test Well: mw29h

AQUIFER DATA

Saturated Thickness: 18. ft

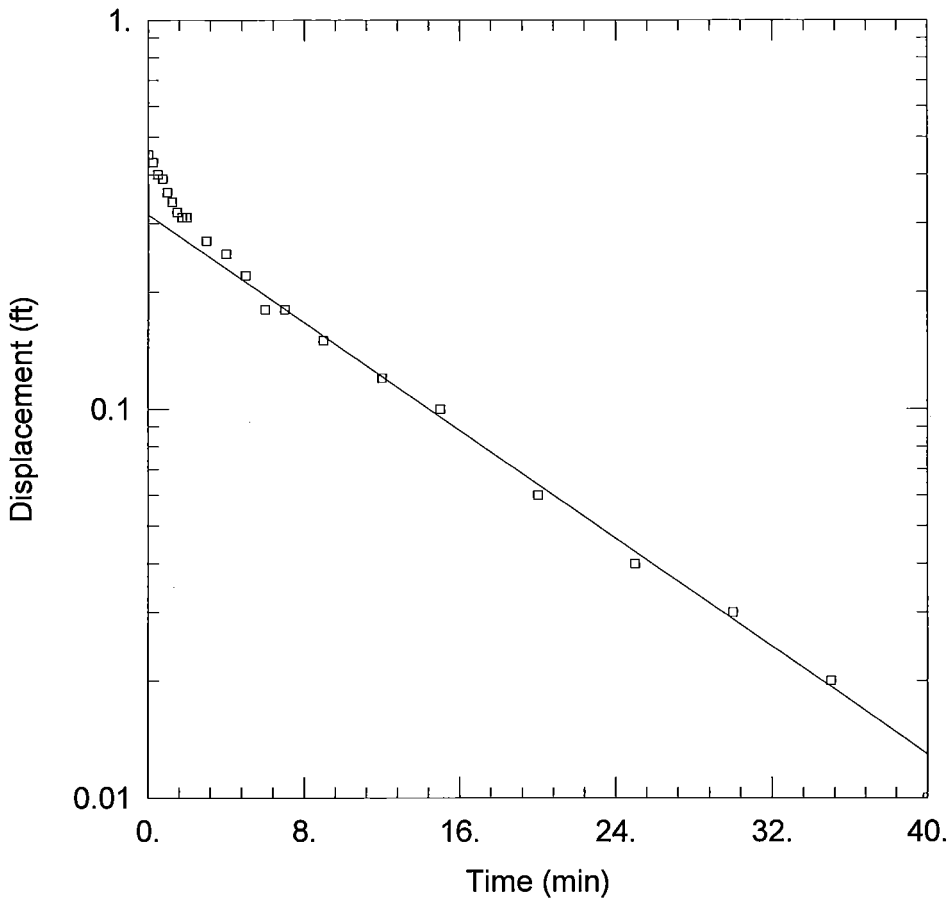
WELL DATA (mw29h)

Initial Displacement: 0.45 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: KGS Model

Kr = 0.0001336 cm/sec
Kz/Kr = 1.
Ss = 0.0002141 ft^{-1}



WELL TEST ANALYSIS

Data Set: H:\718000\hydtst05\mw29\mw29brh.aqt
Date: 02/12/10 Time: 12:43:39

PROJECT INFORMATION

Client: iuc
Test Well: mw29h

AQUIFER DATA

Saturated Thickness: 18. ft Anisotropy Ratio (Kz/Kr): 1.

WELL DATA (mw29h)

Initial Displacement: 0.45 ft
Total Well Penetration Depth: 18. ft
Casing Radius: 0.167 ft
Static Water Column Height: 18. ft
Screen Length: 18. ft
Well Radius: 0.281 ft

SOLUTION

Aquifer Model: Unconfined
Solution Method: Bouwer-Rice

K = 0.0001003 cm/sec
y0 = 0.3159 ft